City of Wenatchee
Parks and Recreation Department

Community Forestry Plan

April 2009

PREFACE

A tree is a woody perennial plant, generally with one main trunk, having the potential to exceed 60 feet in height. Trees are an important resource. They provide much more than texture, color, and beauty to the City; they also modify the local environment and help provide the City character and identity. To gain the full benefit of what trees have to offer, they must be properly managed from selection and planting to a lifetime of maintenance.

Trees are a major part of the City's natural resources. They have beneficial value both from a psychological as well as an environmental standpoint.

Trees add beauty through their shape, texture, color, and fragrance. They soften the appearance of buildings, parking areas, and streets. Psychologically, trees create feelings of relaxation and well-being. They provide privacy and a sense of solitude and security by their presence.

Studies have shown that properly placed trees reduce energy consumption by shading building walls and windows. The shade and canopy cover from trees alters surrounding micro-environments and reduces energy costs by cooling the structures they protect. During winter months, trees alter wind flow and drifting snow by blocking or redirecting winds to passively reduce winter heating costs.

Trees provide habitat and food sources for small animals and birds thereby enhancing the character of the environment. The tree inventory is a useful resource to locate, improve, and preserve the habitat of wildlife species.

Trees intercept rainfall to help control erosion of valuable topsoil. The tree's root systems help stabilize the soil and slow rainfall runoff by absorbing water before it enters a storm drainage system.

Taken as a whole, trees return overall benefits and value to the City beyond the time and money invested in them for planting, protection, and maintenance.

The purpose of this plan is to serve as a supplement to the City of Wenatchee Parks, Recreation Open Space Plan and Park Design Standards and Development Policies. It is designed to provide general direction, information, guidance and a plan of action for the City Community Forestry Program. The plan is intended to address City owned and operated forest resources and programs to assist in ensuring that the resource may be sustained into the future.

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INTRODUCTION

INTRODUCTION

The City of Wenatchee Comprehensive Forestry Plan was developed to provide detailed information and direction with respect to tree resources located within City owned and operated areas. It will function as a support document for the Parks, Recreation and Open Space Plan and Park Design Standards and Development Policies.

Planning for the document began in August 2007. Research by the Parks and Recreation Advisory Board, hired consultants and Parks and Recreation Department staff continued through 2008 and into 2009 culminating in the development of the plan document. The following is the resolution adopting the Community Forestry Plan.

RESOLUTION NO. _____

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF WENATCHEE, CHELAN COUNTY, WASHINGTON, ADOPTING A COMMUNITY FORESTRY PLAN

WHEREAS, the City of Wenatchee desires to continue providing, maintaining and developing high quality parks, recreation facilities and open spaces for the use of community residents and visitors; and

WHEREAS, the City of Wenatchee desire to secure for its residents an attractive, safe living environment for a high quality of life; and

WHEREAS, the City Council recognizes the contribution of trees to the livability of the community; and

WHEREAS, on XX,XX, 2009 the Wenatchee Parks and Recreation Advisory Board passed a motion recommending that the City Council adopt the Community Forestry Plan to satisfy a requirement of their charter; now therefore

BE IT RESOLVED by the City Council of the City of Wenatchee, Chelan County, Washington, as follows:

Section 1. The Wenatchee City Council hereby adopts the City of Wenatchee Parks and Recreation Department Community Forestry Plan attached hereto as Exhibit "A".

TREE ORDINANCE

Part of the process in the development of the Community Forestry Plan was to update the City Tree Ordinance. The Ordinance is included here for reference purposes and was adopted independently of the plan.

ORDINANCE NO. ___

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WENATCHEE, WASHINGTON AMENDING THE TREE ORDINANCE FOR THE PLANTING, CARE AND MAINTENANCE OF TREES LOCATED IN AREAS OF PUBLIC OWNERSHIP.

WHEREAS, the City of Wenatchee is desirous of securing for its residents an attractive, safe living environment and high quality of life; and

WHEREAS, the City of Wenatchee recognizes the contribution of trees to the livability of the community; and

WHEREAS, the City of Wenatchee is interested in protecting and improving the quality of its existing and future tree resources; now therefore

NOW, THEREFORE, the City Council of the City of Wenatchee, Wenatchee County, Washington, hereby ordains as follows:

Chapter 7.12 of the Wenatchee Municipal Code is hereby amended to read as follows:

7.12.010 Purpose

The purpose of this ordinance is to establish regulations for the planting, care, and maintenance of trees in areas of public ownership.

7.12.020 Definitions

Whenever used in this chapter, the following terms shall be defined as herein indicated:

"Hazard Tree" means any tree or part that poses a high risk of damage to persons or property.

"Large Tree" means any mature tree which would reach a maximum height of more than fifty (50) feet with a maximum spread of over 35 feet.

"Major Pruning" means cutting back of limbs larger than one and one-half inches in diameter on street trees.

"Medium Tree" means any mature tree which would reach a maximum height of 25 to 49 feet with a maximum spread of 34 feet.

"Parks and Recreation Advisory Board" means the named advisory Board who reports to the City Council and acts in an advisory capacity on the Community Forestry Program.

"Park Trees" means trees, shrubs, bushes and all other woody vegetation in public parks having individual names, and all areas owned by the city, or to which the public has free access.

"Public Owned Property" means property within the City of Wenatchee and; owned by the city in a fee simple absolute; or implied or expressly dedicated to the public for present or future use for purposes of vehicular or pedestrian traffic, park and open spaces or public easements.

"Significant Tree" means an existing deciduous or coniferous tree six inches or more in diameter measured four feet six inches above the adjacent grade, of any species suitable for inclusion as permanent landscaping in a project. This also includes unusual, historic, heritage or rare trees.

"Small Tree" means any mature tree which would reach a maximum height of 24 feet with a maximum spread of 24 feet.

"Street Trees" means trees, shrubs, bushes and all other woody vegetation on land lying within the public rights-of-way within the city.

"Stumps" means the lower portion of the tree up to a maximum height of four feet, which remains after the foliage, limbs, branches and the upper part of the trunk have been cut off.

"Tree Appraisals" use the Trunk Formula Method of the Council of Tree and Landscape Appraisers.

"Tree Owner" means the owner of the real property which 51 percent or more of the trunk is located at ground level.

"Tree Topping" shall be herein defined as the severe cutting back of limbs to stubs larger than three inches in diameter within the tree's crown to such a degree so as to remove the normal canopy and disfigure the tree.

7.12.030 Street Tree Species to be Planted

The species list contained in City Recommend Tree List constitutes the official Street Tree species list for Wenatchee, Washington. No species other than those included in this list may be planted as Street Trees without written permission of the Public Works Director or designee.

7.12.040 Spacing

The spacing of Street Trees will be in accordance with the species size classes listed in City Recommend Tree List. No trees may be planted closer together than the following: Small Trees, 30 feet; Medium Trees, 40 feet; and Large Trees, 50 feet; except in special plantings designed or approved by the Public Works Director or designee.

7.12.050 Planting Strip Requirements

No tree or trees shall be planted or allowed to grow in any parking strip which is less than five feet in width measured from the face of the curb to the near edge of the cement sidewalk, nor shall any tree or trees be planted or allowed to grow in a parking strip lying between a cement walk and a property line, within a distance of two and one-half feet from the near edge of the cement walk or the face of the curb with the exception of trees planted in approved tree wells with structural soils. Where parking strips are greater in width than five feet, no tree or trees shall be planted or allowed to grow therein nearer to the walk or face of curb than one half the width of the parking strip.

7.12.060 Distance from Street Corners and Fireplugs

No Street Tree shall be planted closer than 10 feet from any street corner, measured from the point of the nearest intersecting curbs or curb lines. No Street Tree shall be planted closer than 10 feet of any fireplug.

7.12.070 Utilities

No Street Tree other than those species listing as Small Trees in City Recommend Tree List may be planted under or within 10 lateral feet of any overhead utility wire, or over or within 5 lateral feet of any underground water line, sewer line, transmission liner or other utility.

7.12.080 Public Tree Care

The city shall have the right to plant, prune, maintain and remove tress, plants and shrubs within the lines of all streets, alleys, avenues, lanes, boulevards, parks, open spaces and public grounds as may be necessary to insure public safety or preserve or enhance the symmetry and beauty of such areas.

The city may remove or cause to order to be removed any tree or part thereof which is in an unsafe condition or which by reason of its nature is injurious to persons, sewers, electric power lines, gas lines, water lines, or is affected by any injurious fungus, insect or trees based on risk. This section does not prohibit the planting of Street Trees by adjacent

property owners providing that the selection and location of said trees is in accordance with the provisions of this Ordinance.

General tree care to include, but not be limited to, the fertilization, aeration, pruning, planting, removal, insect and disease diagnosis and treatment shall be in accordance with American Standards for Nursery Stock specifications. A general tree planting detail is contained in the Parks and Recreation Design Standards and the Community Forestry Plan.

7.12.090 Tree Topping

It shall be unlawful as a normal practice for any person, firm, or city department to top any street tree, park tree or other tree on public property. Trees severely damaged by storms or other causes, or certain trees under utility wires, where wildlife snags are desired or other obstructions where other pruning practices are impractical may be exempted from this Ordinance at the determination of the Public Works Director, Parks and Recreation Director or designee.

7.12.100 Pruning, Corner Clearance

Every owner of any tree overhanging any street or right-of-way within the city shall prune the branches so that such branches shall not obstruct the light from any street lamp or obstruct the view of any street intersection and so that there shall be a clear space on ten (10) feet above the surface of the street or sidewalk. Said owners shall remove all dead, diseased or hazardous trees, or broken or decayed limbs which constitute a menace to the safety of the public. The city shall have the right to prune any tree or shrub on private property when it interferes with the proper spread of light from a street lamp or interferes with visibility of any traffic devise or sign.

7.12.110 Dead or Diseased Tree Removal on Private Property

The City shall have the right to cause the removal of any dead or diseased trees on private property within the city when such trees constitute a hazard to life and property as recommended by an ISA certified Arborist or harbor insects or diseases which constitute a potential threat other trees within the city. The Community Development Department will notify the owners of such trees in writing. Removal shall be done by said owners at their own expense within sixty days after the date of service of notice. In the event of failure of owners to comply with such provisions, the city shall have the authority to remove such trees and charge the cost of removal on the owner's property tax notice.

7.12.120 Removal of Stumps

The area for stump removal is that which causes the surface of the ground to be higher than the adjacent grade. All stumps of street and park trees shall be removed a minimum of four (4") inches and a maximum of twelve (12") inches below the existing grade so the top of the stump shall not project above the surface of the ground. The hole or depression resulting from the removal work shall be filled with topsoil and made level with the existing grade.

7.12.130 Nuisances – Enforcement official.

The director of public works or his duly authorized representatives shall be charged with enforcement of the following sections of this chapter.

7.12.140 Interference

It shall be unlawful for any person to prevent, delay or interfere with City of Wenatchee officials, employees or any if its agents while engaging in and about the planting, cultivating, mulching, pruning, spraying or removing of any street tree, park tree or trees on private grounds as authorized by this Ordinance.

7.12.150 Arborists License and Bond

It shall be unlawful for any person of firm to engage in the business or occupation of pruning, treating, or removing street or park trees within the City without first applying for and procuring a license.

7.12.160 Penalty

Violation of this Ordinance is a gross misdemeanor punishable by a fine of not more than One Thousand Dollars ($1,000) and a jail term of not more than one (1) year. Each day that such violation is allowed to continue shall be considered a separate and additional violation of this Ordinance.

7.12.170 Severability

Should any section, subsection, paragraph, sentence, clause, or phrase of this chapter be ordered unconstitutional or invalid for any reason, such decision shall not affect the validity of the remaining portion of this chapter.

7.12.180 Repeal

All ordinance or portions thereof in conflict with the provisions of this ordinance are hereby repealed.

CITY RECOMMENDED TREE LIST

The following is a list of recommended species for different locations. This is not intended to be a complete list. New varieties are discovered and made available at different times. Other trees may be substituted and used, if approved by the Public Works Director, Parks and Recreation Director or designee.

Recommended Street Trees

The following are considered Small Street Trees. Small Street Trees typically have a crown not exceeding 30 feet tall and a variable spreading habit. These are the only trees allowed where there are overhead utility lines.

Autumn Brilliance Serviceberry	Sugar Tyme	Globe Ash
Frauter's Vesuvius Flowering Plum	Newport Flowering Plum	American Hornbeam
Canada Red Chokecherry	Kwanzan Oriental Cherry	Paperback Maple
Cherry Dogwood	Japanese Hornbeam	Persoan Parrotia
Golden Desert Ash	Prariefire Crabapple	Lavalle Hawthorne
Golden Raindrops Crabapple		

Medium Narrow Street Trees typically have a crown not exceeding 45 feet and with a narrow growing habit. The following trees are recommended where tall, narrow space is available in planting space not less than 5 feet wide.

Ananogawa Cherry	Capital Flowering Pear	Bowhall Red Maple
Chanicleer Flowering Pear	Cleveland Select Flowering Pear	Pyramid Hornbeam
Columnar Norway Maple	Columnar Sargent Cherry	Skyrocket English Oak
Karpipck Maple		

Medium Street Trees typically have a crown not exceeding 45 feet in height and a wider spreading habit. The following trees are recommended where tall, wide crown space is available in planting space not less than 5 feet wide.

Aristocrat Flowering Pear	Autumn Blaze Flowering Pear	Hedge Maple
Worpleson Sweetgum	American Hop-hornbeam	Ginkgo Tree
Autumn Flame Red Maple	Crimson King Norway Maple	European Hornbeam
Green vase Japanese Zelkova	Katsura Tree	Sawtooth Oak

Ruby Horsechestnut	Whitebeam	Raywood Ash
Sour Gum	Coliseum Maple	Chinese Tuliptree
American Yelloweood	Kobus Magnolia	

Large Street Trees typically have a crown exceeding 50 feet and a spreading habit. The following trees are recommended where the planting space is at least 6 feet wide.

Pin Oak	Red Oak	Tulip Tree
Bur Oak	Dawn Redwood	English Oak
Bloodgood London Plane Tree		

Recommended Park Trees
Many of the above referenced Street Trees would also be appropriate to plant in developed park areas.

Grand Fir	Bigleaf Maple	Douglas Fir
Western Red Cedar	Western Hemlock	Cascara
Vine Maple	Shore Pine	Paper Birch

Prohibited Street Trees
Use of the following street trees within the street right-of-way is prohibited.

Box Elder	Hemlock	Silver Maple
Spruce	Weeping Willows	Pine
Fir	Poplar	Cedar
Cottonwood	Any fruit-bearing tree except ornamentals	

PLANNING

PLANNING

Plan before you plant. This is always the rule when planting, but it becomes even more essential in the urban setting. Car doors, utility lines and environmental factors influence urban trees. Careful planning reduces the impact of these factors.

When planting trees along a street, locate the trees with care to avoid potential damage by cars. Position the trees in the center of the parking space for diagonal parking areas. For streets with parallel parking, plant the tree at the parking space marker to avoid car doors hitting and damaging the trees. See figure 1 below.

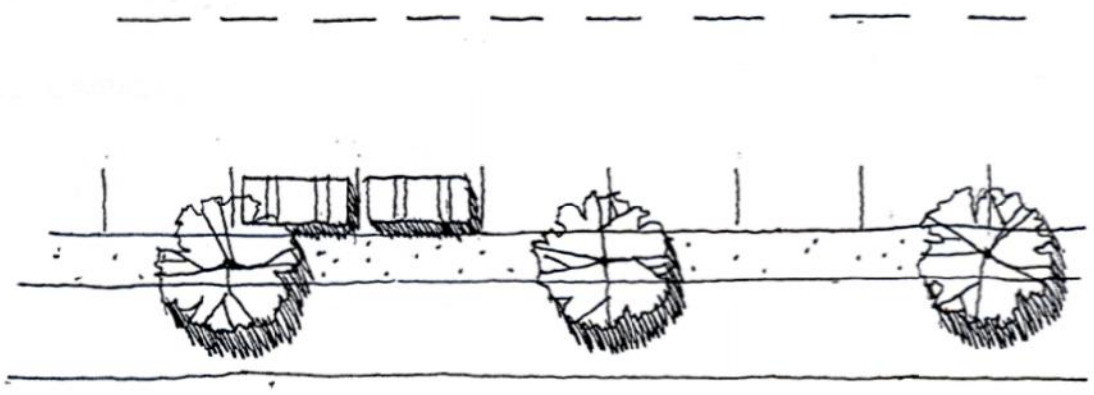


Figure 1

Tree branches contacting power lines are major cause of power outages. Power lines have established heights which can be included in initial plans. Primary power lines average 28 feet above the ground, secondaries usually are 25 feet high and telephone and cable lines are 20 feet from the ground. Smaller trees with mature heights less than the line height will not interfere with power lines and therefore will not interrupt electrical service. Street lights, fire hydrants and distances from curbs must be taken into consideration when planting.

Utility lines also exist underground. Determine the location of any underground lines before digging.

Environmental conditions of the site greatly impact the trees. The site's soil influences the future growth of the tree. Sandy soils drain faster but are less fertile than clay soils. Disturbed soils around new buildings often are very compacted, lacking enough moisture and air space to support good root growth. If the soil at the site is poor, tolerant plants must be chosen.

Light and exposure have a bearing on the growth of plants. Is the planting location surrounded by buildings, restricting sunlight exposure to a few hours a day? Perhaps the site is on the south side of a building near a parking lot. Reflected heat in this location will be a vital concern. Some plants grow better under low light conditions while others thrive in full sun. Select the species according to the environment in which they are to be planted.

WILDLIFE

Public interest in establishing wildlife in the urban environment is increasing. Opening urban lands to wildlife can transform a sterile plot into a vital habitat.

There are four considerations when planting to increase wildlife activity: food, water, shelter and space. Collectively, these components are called habitat. Specific habitat requirements vary by species but all species need all four components to some degree.

Food is a prime concern of wildlife in urban areas. Often, the native vegetation has been removed and the plants that are planted are seedless forms that create less debris but do little for wildlife. With careful planning, though, food can be made available. Overlapping flowering and fruiting times offer a consistent source of food for wildlife. Gaps may be supplemented with birdseed.

Wildlife species need water in "dome" form. This can be supplied by a traditional bird bath or an in ground water area. In addition to its wildlife value, a water feature can be a strong focal point in the landscape.

Shelter is essential for protection from predators, nesting and resting. Different species have different shelter requirements. Some birds and small mammals may prefer dense understory growth while others prefer evergreens.

Closely aligned with shelter is space. This concept is especially important for reproduction. Animals and birds need room during the breeding season. A bird may require a larger territory during that season, but once the season ends the territorial defense ends and other species may enter the area.

A recommended planting is one that includes multilayered vegetation with a diversity of plant species. This type of planting attracts more wildlife species than monocultures of tall trees or grass. Native species are best because most have passed the test of time for ecological stability and the native wildlife is adapted to using them.

By being aware of the specific needs of the species being attracted and by meeting those basic needs, a sterile urban plot can be turned into a mini-wildlife refuge.

WETLAND PROTECTION

Wetland and riparian areas provide important fish and wildlife habitat, and protect water quality. These areas are not always obvious, but landowners still need to identify and protect them.

Wet soils, high water table levels, and the presence of water-tolerant plants typically characterize wetland and riparian areas. Soils in these areas absorb water during the wet seasons and then slowly release it. This helps regulate the water level during times of high water and seasonal low flows.

The areas around wetlands and stream filter surface runoff, blocking sediment and other debris from entering the water. Sediment entering the water can suffocate aquatic insects and plants, and can fill in fish resting pools and spawning grounds.

After timber harvest, trees and other vegetation must remain as a buffer along fish bearing streams and most wetlands to protect water quality, and to provide fish and wildlife habitat. Trees that keep vegetated buffers provide:

- Shade and cool water needed by fish and aquatic species during summer months.
- Filters to minimize silt entering water.
- Logs and organic material in streams crucial for fish habitat.
- Wildlife habitat protection.

Large tree harvesting along creeks or other large bodies of water may be subject to the Shoreline Management Act. In these instances removal of trees may be prohibited within 150 feet of the water. Additionally, a wetland management zone is required for properties with any of the following:

Type A wetland: An area of 1/2 acre or more that is covered by open water seven consecutive days between April 1 and October 1.

Type B wetland: An open area of 1/4 acre or more that is vegetated with water tolerant plants and or shrubs.

Type A or B wetland: Forested and non-forested marshes, bogs, swamps, or areas with much like soils, larger than 1/4 acre.

Wetland management zones have variable widths based on the size and type of wetland. Boundaries are measured out from the edge of the wetland. The forest practices rules establish leave tree requirements per acre.

Depending upon the specific site, it may be necessary to include one or all of the following entities to determine the action on a given site: The Department of Natural Resources, Army Corps of Engineers, Department of Ecology, and Department of Fish and Wildlife.

UTILITIES

Most power outages in the Northwest are caused by trees. Trees blown against power lines by the wind, limbs growing into power lines and causing shorts and branches weighted down by snow and ice, pulling power lines down with them are all contributing factors creating outages.

Tree-related outages tend to last longer than other outages, because they are often hard to locate and precarious to repair. Downed wires and fires caused by trees burning in power lines can have serious safety consequences.

The Chelan County Public Utility District routinely prune and remove trees to reduce this risk. They typically operate on a three to five year cycle.

Pruning and removal operations involve specialized work. When the trees are already too close to power lines, the work is even more complicated. Public safety regulations require that only qualified line-clearance tree workers be used when working within ten feet of power lines. Lines can sometimes be de-energized; sometimes protective devices may be used. It may be possible to eliminate the electrical hazard by removing the portion of the tree in conflict with the line first, then completing the rest of the work.

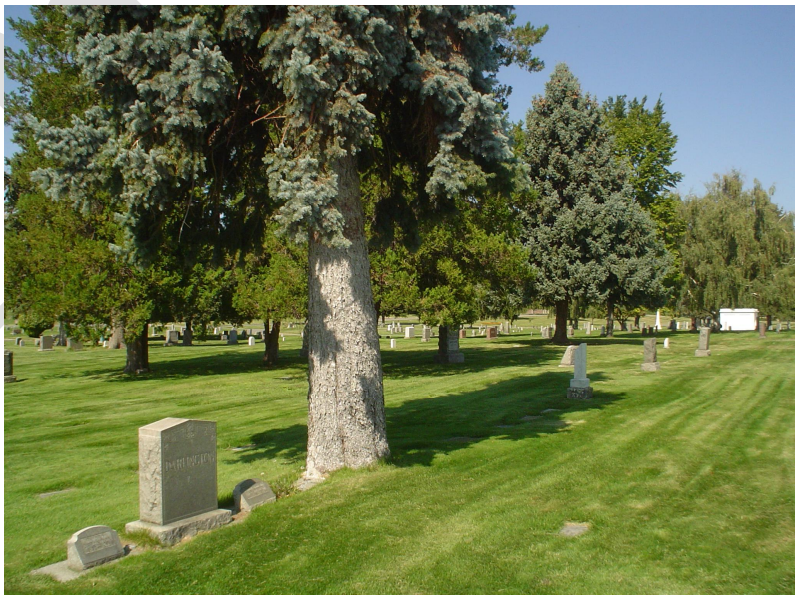
As new development occurs the nature of the landscape changes. Capital improvement projects and private developments regularly make provisions for landscape plantings. Selecting the right species of trees for the site at planting time can dramatically reduce potential maintenance problems in the future. A list of recommended species for the City of Wenatchee may be found in the Tree Ordinance section of this plan. The Chelan County Public Utility District has also published reference material to help in the placement and care of trees.

A second concern is with underground utilities. Trees with invasive roots often find their way into water and sewer systems, causing clogs and structural damage to pipes. These roots may go undetected for many years until a line becomes nonfunctioning. In instances such as this, lines may need to be replaced or the roots removed from the system. In the event new plantings are being installed, trees should be

selected with non invasive roots. A locate should be conducted a minimum of two working days prior to the planting of trees to identify any underground utilities. Locates are performed by a locating service and are free of charge. The color of paint used indicates the type of utility.

Red	=	Electric
Yellow	=	Gas & Oil
Orange	=	Cable TV & Communication
Blue	=	Water
Green	=	Sewer
Pink	=	Temporary Survey
White	=	Proposed Excavation

The number of the "Call before you dig" service is: 1-800-424-5555.



TREE PLANTING, CARE AND MAINTENANCE

SEEDLING PLANTING

The method in which seedlings are handled is vital to their survival. Seedlings need to be refrigerated until planting time; their roots should not be allowed to dry out; and they need to be kept out of direct sunlight. The following are examples of the correct method of planting seedlings and some common errors.

CORRECT

PLANTING ERRORS

Tangled roots

Rock

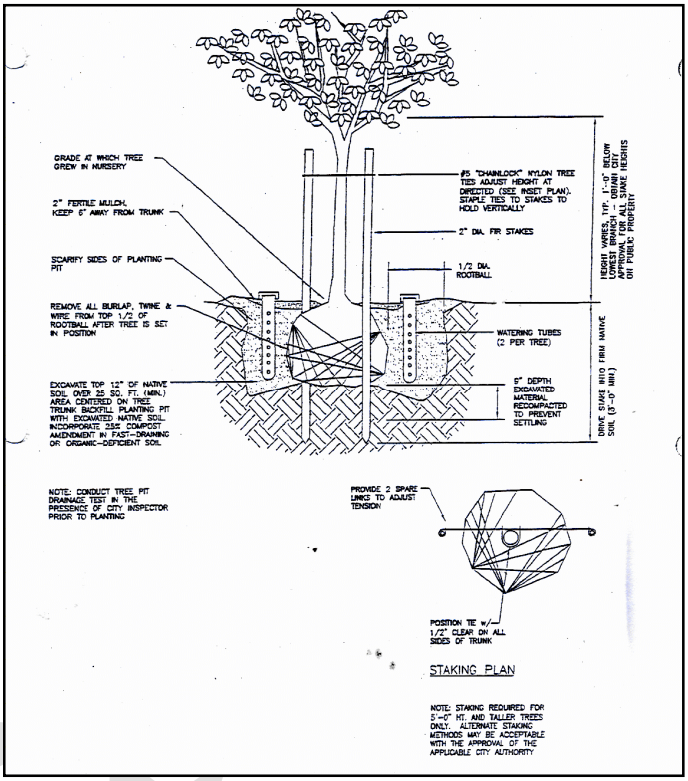
Air pocket

Too shallow

Too deep

TREE PLANTING

Step 1
Dig the planting hole deep enough so the tree, when set in the hole will be at the level it was in the nursery and wide enough to allow roots to be spread without crowding or bending them. This is typically three times the diameter of the root ball. Loosen the soil on the sides of the hole with a shovel or spade fork.



Step 2
Balled and burlapped trees:
Set the root ball in the hole and remove the burlap or fold it down beneath the bottom half of the root ball. Be sure to remove all twine or wires from around the base of the tree and top of the root ball.

Container trees:
Remove the plant from the container and set the root ball on its side. Slice through the lower half of the root ball with a spade to break up the tight circle of roots. Loosen the root ball to stimulate root growth into the surrounding soil. If the roots are still soft and fibrous, crumble away an inch of the growing medium from around the outside of the ball and pull out the roots.

Bare root trees:
Prune out injured or tightly circling roots. Place in hole with roots spread equally around the hole. Plant bare root trees in the dormant season only. Keep roots covered and moist before planting.

Step 3.
Using the same soil that was dug from the hole, firmly pack the soil in and around the root ball. Do not add any soil amendments.

Step 4.
Water well with a slow soaking to wet the soil to the full depth of the rootball. Be sure to apply water directly to the rootball as well as the surrounding soil. Build up a three inch ring of soil to form a saucer to hold the water in the root zone. Deeply water newly planted trees every two weeks for the first two summers. Deep watering encourages roots to grow down which provides the tree with more support. Light surface watering causes roots to grow horizontally increasing the risk of sidewalk heaving, blowing over in wind storms and reducing survivability in periods of drought.

Step 5.
Mulch an area extending approximately two feet from the trunk. To avoid crown rot, keep the mulch away from direct contact with the lower trunk.

Step 6.
Stake only if the tree needs support or protection with two stakes driven outside the rootball. Tie the stakes to the tree at the lower third of the trunk or just to the height necessary to hold the trunk upright while allowing the top of the tree to flex freely in the wind. Common tie materials include canvas web

belting, chainlock, or rubber from automobile tires but avoid materials with wire centers. Trees should be checked periodically to determine if they still require support. Remove the tree stakes after one year.

Step 7.
Prune very lightly if needed to remove dead or broken branches.

Step 8.
The following growing season fertilizer may be added in needed.

MAINTENANCE

Regular maintenance assures the urban forest continues to grow in value. Preventative maintenance should be the primary goal of the Community Forestry Program. An effective maintenance program includes regular inspection and on-going care such as pruning, mulching, insect and disease control, and fertilizing.

FERTILIZING

A tree that has adequate mineral elements is healthier, stronger, more tolerant of stress, and more aesthetically pleasing. If the fertility level in the soil is low, then the appropriate addition of fertilizer will benefit the plant. Indications of low fertility include: Poor leaf color, unusually slow growth, or overall poor tree health. Soil fertility levels can be determined by having the soil tested by a reputable laboratory. There are many firms which specialize in conducting soil tests or the Cooperative Extension or the U.S. Soil Conservation Service for soil test laboratories may be of assistance.

Fertilizers must supply the guaranteed analysis on the label. This analysis represents the percentage of nitrogen, phosphorus and potassium or potash always in that order. Thus a 21-7-14 analysis will contain 21% nitrogen, 7% phosphorus and 14% potassium.

Fertilizers come in slow release and fast release forms and can be applied by a number of different techniques. A granular form broadcast on the soil surface is very common, inexpensive, and easy to apply. If nitrogen is lacking, this method is successful because nitrogen moves easily through the soil. However, it is less effective for these mineral elements, such as phosphorus, that do not move easily through the soil. Insertion of the material into the soil puts the elements where the tree can use them. This process is time consuming. Injecting directly into the truck increases the risk of over fertilization, does nothing to help the soil and wounds the tree. The best process for an individual situation varies, depending on which nutrients are needed, the equipment that is available, considerations of nearby plants and costs.

Nitrogen is the element most often deficient in the soil. The addition of nitrogen often results in increased growth of established shade trees. A basic formula for nitrogen addition is:

> For trees with a trunk diameter of six inches or more, measured 36 inches above soil level, apply .3 to .6 pounds of actual nitrogen per inch of trunk diameter.
>
> For trees with a trunk diameter less than six inches, use .15 to .3 pounds of actual nitrogen per inch of trunk diameter.

Deciding when to fertilize will depend upon the nutrient needed, application method, climate, and soil condition. The most common application times are in late spring when the plants have come out of dormancy and in the late fall when the plants are entering dormancy.

WATERING

Insufficient water during the growing season may not kill a tree immediately, but drought stress makes trees more susceptible to insect, disease, and environmental problems in subsequent years. Drought and water rationing, two current concerns, contribute to a drought-stressed plant.

There are two ways to reduce summer irrigation and avoid tree stress. The first is through the careful selection of the plant material before planting. Plants that are adapted to the local climate or similar climates, once established are more drought tolerant than plants from regions of dissimilar climates. If a species native to the southeastern United States is planted in Wenatchee, it is more likely to need summer irrigation because its native environment has more summer rainfall. Plants from the Mediterranean and Chile have evolved in climates similar to that of the Pacific Northwest and require similar care to that required by native Northwest plants. Planting species adapted to the local weather pattern will reduce the need for summer irrigation.

The second method is through management techniques. Mulched beds hold moisture and reduce the moisture lost to evaporation. Removing the turf surrounding a tree and mulching that area makes more moisture available for the tree. Weed control is also important. The competition for the soil moisture is reduced and the desirable species have more moisture available.

Whenever irrigation occurs, it is essential that enough water is supplied to thoroughly soak the root area. Frequent, shallow waterings encourage shallow roots that are less likely to survive stressed conditions of drought, wind storms and reduce the risk of sidewalk heaving.

Newly established plantings should be deeply watered every two weeks for the first two summers after planting.

MULCHING

Mulches offer many benefits. Mulches conserve water by reducing soil moisture lost through evaporation. Mulches affect the soil temperature. Light colored mulches reflect light and can reduce soil temperatures or at least keep them from increasing. Dark mulches perform the opposite function, by heating the soil. Overall, mulched soils maintain a more constant temperature than soil without mulch. Mulches help reduce soil erosion and organic mulches can improve the aeration of heavy soils.

Mulches can cause problems when not used correctly. Some mulch, such as hay and alfalfa, can introduce weed seeds into the planting areas. Mold can develop when the mulches are kept too wet. Some organic mulch, as they decompose, may remove nitrogen from the soil. A light application of a high nitrogen fertilizer mixed into the mulch will help avoid nitrogen deprivation. Repeated heavy applications of mulch can cause injury or death to shallow rooted plants. Mulch may be applied anytime. Remove all weeds and apply enough mulch to a depth of three to four inches. Make sure the mulch is kept a minimum of four inches away from the trunk of the tree to reduce the potential for pest and disease related problems.

A variety of materials may be used as mulch. Inorganic mulches include black plastic, newspaper, small gravel or rock. Bark chips and hay are two organic materials that can be used as mulches.

PRUNING

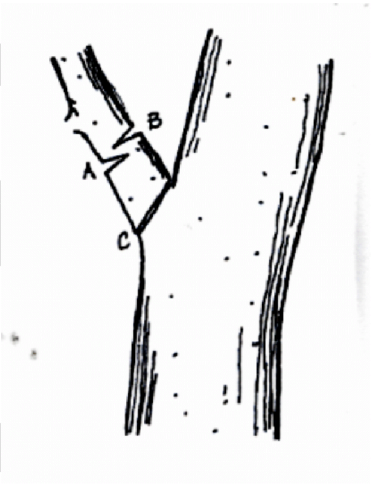
Pruning is an essential operation for the growth and well being of trees. The health of the tree is improved or maintained by removing dead, diseased and damaged wood. The quality of flowering and

fruiting are increased with proper pruning.

There are two types of pruning cuts: thinning and heading. A thinning cut reduces the number of shoots by removing the entire branch. This approach is appropriate if the objective is to remove dangerous or low hanging branches, or to remove growth form the center of the tree to allow light and air to penetrate the canopy. Thinning cuts also help to establish a good branching structure by balancing spacing between branches.

Heading cuts shorten branches and often increase the number of new shoots by stimulating the buds near the cut. The new growth can be directed by where the cut is made. If a cut is above a bud facing outward, the bud will bead to produce a shoot what will grow away from the center of the tree.

Heading is the procedure used when a tree is topped to reduce its height. This procedure will not lead to a shorter tree, through, because more shoots will be produced and this new growth is stiffer, resulting in an increased possibility of wind breakage. Early training and selecting the right tree for the right location is the best way to maintain a tree at a specific height. Topping is not permitted by Ordinance with the exception of responding to damage.



When a pruning cut is made, the wound should be as small as possible. Before a branch is to be removed, locate the branch collar. The collar is a small fold of bark at the base of a branch where it joins the trunk. Make the cut just outside of this ridge. Cutting into the collar increased the wound size and the possibility of decay. To remove a large branch, undercut it first to avid tearing the bark (see Diagram to right). Make the first cut (A) on the underside of a branch, slightly out from the branch collar. Remove the branch with the second cut (B) at the edge of the collar. Do not apply a wound dressing to the tree as it may prove detrimental to the tree.

The general procedure for pruning trees is:

1. Remove dead, diseased and damaged wood.

2. Remove or head back branches that are crossing other branches or going in the wrong direction.

3. Thin, as necessary, to allow light and air into the center of the tree and for even spacing of branches.

Perform most pruning during the dormant season, in late winter before bud break. This timing avoids the sap discharge that occurs when certain trees are pruned during the growing season.

If started when the tree is young, pruning can help establish a strong branch framework that will require less work as the tree matures.

TREE PROBLEMS

Plant problems are caused by a wide variety of factors. Insects and diseases may infect a tree but are not the sole causal agents for a declining health. Environmental stress, mechanical injury, or nutrient deficiencies are just a few examples of other factors influencing the growth of trees.

Factors that can inhibit tree growth can be divided into three categories: Infections living diseases, non-

living factors and insect infestations.

INFECTIOUS DISEASES

Infectious diseases are commonly caused by fungi, through bacteria and viruses also are infectious. There are many ways to categorize tree diseases. The following divisions are based upon the parts of the plant they affect.

Vascular diseases interrupt the nutrient and water transport within the plant. Typical symptoms include wilting and dead leaves on one or more branches. The inner wood may show discoloration. Dutch elm disease and verticillium wilt are examples of two vascular diseases that strike urban trees.

Leaf diseases cause a variety of symptoms, ranging from dead patches on the leaves to death of the entire leaves. Although visually unappealing leaf diseases seldom cause permanent damage unless severe defoliation occurs over several years. Common leaf diseases include powdery mildew, anthracnose and pine needle-case.

Stem diseases cause cankers and galls. Cankers are dead areas on the tree trunk or branches, often appearing as sunken or discolored areas. Galls are tumor-like growths caused by insects, fungi, bacteria, or viruses. If they occur on large branches or the trunk, the galls can interfere with normal sap flow.

Heart rot often is found on only, non-vigorous shade trees. The heart rot fungi attack the inner wood of a tree or large branch and can shorten a tree's life span by weakening its structure. In this condition, the tree is more susceptible to storm damage or other problems. The presence of mushrooms or shelf fungi on the outside of the tree may indicate heart rot.

Root rot will weaken or kill the root system. Without a healthy root system, the upper sections of the tree are deprived of nutrients and water. Infected roots are discolored with soft decaying spots. Above ground symptoms include stunted growth, small leaves, and dieback of the upper branches. Phythopthora root rot can be serious in the Pacific Northwest.

NON-LIVING FACTORS

Non-living factors can be divided into three basic categories: Environmental stress, chemical injury, and physical damage. These factors are important in and urban trees life. Their control usually depends on correcting the condition that caused the problem.

Environmental stress can be due to any of a number of problems. Both drought and excessive water can cause small yellow leaves. Frost cracks can occur as long vertical splits in the trunk when the tree is exposed to rapid temperature drops. Heavy foot or vehicular traffic can cause soil compaction. Under compacted conditions, roots cannot extract the needed mix of oxygen and water from the soil. Plants thus deprived will suffer from yellowed leaves, leaf loss and die-back.

Chemical injury commonly occurs as a salt injury or herbicide damage. Salt injury is a problem where de-icing chemicals are used on roadways or walkways. For areas that will be exposed to salt, salt tolerant trees should be used. Herbicide damage is common because of the herbicides ability to drift. Symptoms indicating herbicide damage include twisted and distorted leaves that turn brown and fall. Herbicide damage can be avoided by using careful applications of less volatile chemical formulations and only spraying on calm days.

Physical damage is common in the urban environment. Automobiles, vandals, livestock, lawn mowers, and rodents can all cause physical damage to a tree. Symptoms will vary but close examination of a tree will help to identify the problem.

INSECTS

Insects cause problems in a number of different ways, including sucking, chewing, secreting and serving as carriers for diseases.

Sucking insects remove fluids and interior cell components leaving numerous small, discolored wounds in the leaves. Sucking insects, such as aphids, often secrete a sticky substance known as honeydew, upon which a black fungus called sooty mold often grows. The sooty mold does not attack the tree directly but grows on the honeydew residue. Neither the honeydew nor the sooty mold directly injure the plant, but are visually unappealing. Aphids may be controlled naturally with the introduction of ladybugs, their natural predator, or through the use of spraying a mixture of soapy water and vegetable oil.

Chewing insects remove all or part of the plant part upon which they are feeding. Ragged holes in the leaves may be the fires clue that insects have invaded the plant.

Insects can also serve as carriers for diseases. An example is the Dutch Elm Disease. The disease is caused by a fungus that is spread through the feeding and breeding activity of the elm bark beetle. The beetles brush against the fungus on a diseased tree and the fly to a healthy tree. The fungi spores become established on the healthy tree. Even though the damage is caused by a fungus disease, it would not spread without the help of insects.

DIAGNOSIS

Diagnosis of any plant problem relies on the following steps:

1. Identify the plant affected, both scientific and common names are needed to make an accurate diagnosis.

2. Carefully examine the problem area, how many and which trees are affected.

3. Determine the appearance of a typical affected plant; always compare a diseased plant with a healthy or normal plant.

4. Determine the primary symptoms, are leaves small and yellow, have galls developed or are some plant parts dead?

5. Look for other clues, are there trails of sawdust, fungi produce spores etc.

6. Isolate and identify the causal agent, a variety of problems can cause the same symptoms. Occasionally an affected plant part must be studied in a lab to determine the problem. The Cooperative Extension Office may also be able to assist in the determination of the problem.

CONTROL

Disease control does not always mean chemical control. The four basic steps to cultural control:

1. Selection of trees. Avoid a tree that is susceptible to common problems. Consider temperature minimums and maximums, soil acidity and moisture levels when choosing a plant.

2. Proper planting procedures. Locate plants in a suitable site. Allowing proper spacing will help reduce excessive humidity, this reducing the risk of diseases that thrive in high humidity.

3. Routine maintenance. Remove diseased branches and shoots. Collect any diseased plant debris and dispose of it. Do not include it in a compose pile. Maintain proper levels of fertilization and irrigation. Some diseases attack succulent growth caused by excess fertilization while other

diseases infect under fertilized plants.

4. Diversity of plantings. Diseases often infect a specific plant. Mixing species can slow disease spread and reduce insect problems.

When chemical controls are necessary, use the lowest toxicity level and only those chemicals specific for the problem. Consult a licensed, insured and bonded tree spraying service to determine the appropriate chemical response to a disease.

SAVING TREES DURING CONSTRUCTION

The following tips will help reduce impacts on trees during construction and avoid turning healthy trees into future hazards. These steps should be followed when developing new park areas and receiving property dedicated to the city.

UNDERSTAND TREES

Trees are living things that require space, soil, water, air and nutrients to live. Trees grow best in groups with understory shrubs, ground covers, and smaller trees. The soils and forest litter around them contribute to their health.

EVALUATE THE SITE

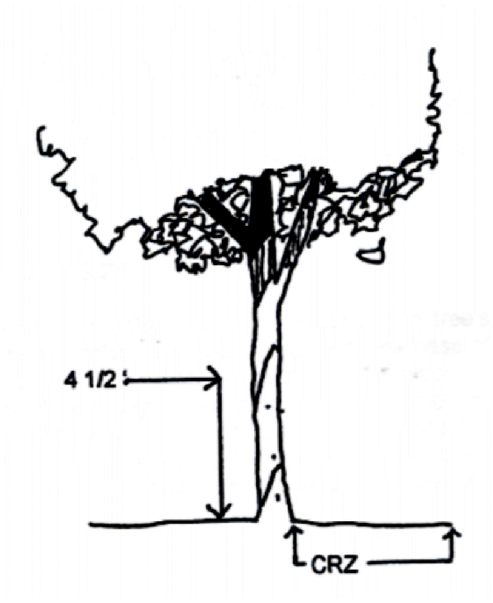
An ISA certified Arborist should evaluate the trees and other vegetation on the site and determine where the best trees and other plants are located. Trees should be evaluated on the basis of species, size, condition, location and soils. They should be flagged in the field and located on the site plan.

DESIGN

With desirable trees located on the plan and in the field, design the construction that avoids the best trees. Determine their critical root zone in relation to the design. Also remember that changing drainage patterns on the site will affect the survivability of the trees.

REDUCE IMPACTS DURING CONSTRUCTION

- Explain tree protection efforts to the project manager.
- Remove unwanted trees carefully.
- Fence critical root zone of trees to be preserved.
- Install tree protection signage and explain tree protection plan to contractors and sub-contractors.
- Do not allow any storage, parking, dumping, or excavating within the critical root zone.
- Disturbance within the critical root zone should be evaluated by the arborist.
- Carefully prune limbs or roots properly before they are broken and damaged.
- Monitor the site to maintain tree protection efforts.



FINAL INSPECTION

After construction is complete, make a final inspection for any needed follow up care.

ILLUSTRATION AT RIGHT

Critical Root Zone =1 foot for every 1 inch diameter of the tree at 4 1/2 feet.

TREE INVENTORY

INTRODUCTION

The management of the City's urban forest is an important task. Each tree species will generally require specific pest management, pruning, and fertilization to maintain its health and vitality. Identifying, quantifying, and understanding the tree population is crucial to determining a comprehensive, long term approach to their management. Trees will generally live longer and gradually require less intensive care with scheduled maintenance.

The tree inventory is an integral element of a park master plan. This chapter provides insight into the process of compiling and managing the tree inventory. The process follows two main phases, Inventory and Analysis.

TERMINOLOGY

Wood chips: A mulch consisting of woody tissue from a tree, obtained during tree-trimming operations.

Cabling: Installation of hardware in a tree to help support weak branches or crotches (Lilly 2001).

Cambium: Layer(s) of meristematic cells that give rise to the phloem and xylem and allow for diameter increase in a tree (Lilly 2001).

Canker: Localized diseased area, often shrunken and discolored, on stems and branches (Lilly 2001).

Compaction: Compression of soil by mechanical means, resulting in loss of the spaces between soil particles in which water and air movement as well as root growth occur

DBH or DSH: Diameter at standard height; the diameter of the trunk measured 54 inches (4.5 feet) above grade (Matheny *et al.* 1998).

End weight: Accumulation of mass at the end of a branch (Matheny *et al.* 1998).

Establishment: The point after planting when a tree's root system has grown sufficiently into the surrounding soil to support shoot growth and anchor the tree (ANSI A300).

Girdling root: Root that grows around a portion of the trunk of a tree, causing inhibition of the flow of water and nutrients by choking vascular elements (Lilly 2001).

Girdling roots: Roots that encircle the base of the trunk and/or the buttress roots, and which may prevent their growth (Matheny *et al.* 1998).

Girdling: Inhibition of the flow of water and nutrients in a tree by choking vascular elements (Lilly 2001)

Girdle: A technique used to kill live trees without cutting them down. It involves severing (by cuts) of a continuous band of cambial tissue around the tree (Dunster 1996)

Girdle: To destroy the conducting bark tissue (phloem) all the way around the trunk, stem, branch or root, thus preventing the movement of fluids bearing nutrients and photosynthetic products up or down the tree, causing death of the affected part. (Dunster 1996)

Greensward: Informal groupings of trees in a grassy lawn, with no significant understory.

Habitat snag: Any standing dead, partially dead, or defective tree at least 10 feet tall that provides present or future habitat critical for the maintenance or enhancement of wildlife (*adapted from* Dunster 1996).

Lateral root: Side-branching root that grows horizontally (Lilly 2001).

Permanent branches: Branches that will be left in place, often forming the initial scaffold framework of a tree (Lilly 2001).

Phototropic growth: Growth toward light source or stimulant (Harris *et al.*1999).

Resistograph drill: A drilling instrument used to determine the density of wood by measuring the amount of resistance presented to the drilling needle as it is driven into the wood. The drilling resistance profiles show clearly where compression wood, annual rings, rot in various stages and other defects have been encountered by the drilling needle.

Root crown: The point at which the trunk and buttress roots meet (Matheny *et al.* 1998).

Root flare: The increased diameter where the roots and trunk meet (also known as the trunk flare or buttress).

Vector: organism that transmits a pathogen (Lilly 2001)

INVENTORY

The inventory is the foundation of the Community Forestry Plan. An inventory trees provides detailed information for future management. Data is used by staff to forecast maintenance and replacement needs and budget for tree-related expenditures. The data aids in developing long-range planning and design decisions such as new plantings, ensuring species diversification, and prioritizing maintenance actions. Tree inventory data was input into a computer aided drafting program (CADD), Access database and geographical information system (GIS) to help effectively manage the resources.

Trees vary considerably in life expectancy, growth habit, and maintenance requirements. It is important to record and maintain composite data on the various species for the purpose of completing other requirements such as tree maintenance budgeting and personnel scheduling.

DATA COLLECTION

The first step in completing a tree inventory is to systematically collect and store data. Tree species, location, size, and overall condition of the trees are the primary data items collected. Data collection and analysis was completed by ISA certified Arborists from Tree Solutions Inc.

Tree health and structure information was collected utilizing visual tree assessment (VTA) methods. The basis behind VTA is the identification of symptoms, which the tree produces in reaction to a weak spot or area of mechanical stress. A tree reacts to mechanical and physiological stresses by growing more vigorously to re-enforce weak areas, while depriving less stressed parts. An understanding of the uniform stress response provides information so that informed judgments about the condition of a tree may be made.
The Pacific Northwest International Society of Arboriculture (PNWISA) Tree Risk Assessment method to evaluate risk potential for each tree. This method is adapted from the United States Forest Service risk

assessment approach and is considered the present Standard of Care. This method provides assessors a structured process, based on good science and arboricultural practices, to assign recommended thresholds for action for the purpose of informing risk managers. The PNWISA Tree Risk Assessment method requires assessor certification.

The method uses a 12 point system, divided into four categories, to rate the potential risk from a tree and its parts.

The Probability of failure is rated at 1-4 points based on the judgment of the Assessor.

1 point = Low risk

The defect is not likely to lead to imminent failure and no further action is required. In many cases these defects might not even be recorded.

2 points = Moderate risk

One or more defects that are well established but would typically not lead to failure for several years. Corrective action might be useful to prevent future problems but only if time and money are available. Not the highest priority for action, these are the "retain and monitor" situations that can be used to inform budget and work schedules for subsequent years.

3 points = High risk

The defect is serious and imminent failure is likely and corrective action is required immediately. These cases require treatment within the next few days or weeks.

4 points = Extreme risk

The tree or component part is already failing. An emergency situation where treatment is required today.

The size of the defective part(s) is rated 1-3 with 1 point for branches or stems up to 10cm (4 inches) in diameter, 2 points for branches or stems between 10-50cm (4-20 inches) in diameter and, 3 points for branches or stems over 50cm (20 inches) in diameter.

The target area is rated 1-3 based on the following target descriptions.

1= Low

Infrequently used, seldom for any great length of time. Workers pass through the area but do not stay within striking distance. No valuable buildings or other facilities within striking distance. Examples = Back country roads or trails; seldom used or overflow or long term parking, industrial areas where workers drive machines (trucks, forklifts, tractors) with substantial cab protection, natural or wilderness areas with limited access.

2= Moderate

People move through the area regularly, but do not stay within striking range very long. Valuable buildings are at the edge of the striking distance and would not be seriously damaged even if the tree did fall down. Examples = Moderate to low use school playgrounds, parks, pick-up and drop-off areas; parking lots with daily use; secondary roads and intersections, dispersed camping sites; moderate to high use trails; work and/or storage yards.

3= High

Frequent use by people, often for long periods of time, or high volumes of people coming and going within striking range. Valuable buildings or other structures within striking range that would suffer major damage in the event of failure. Busy roads. Power lines. Examples = Short term parking constantly in use; pick-up and drop-off areas; emergency access routes and/or marshalling areas; handicap access areas; administrative buildings; high use camping areas, visitor centers or shelters; residential buildings; industrial areas where workers take outside

breaks; development sites where work activity within striking range lasts more than a few hours at a time; main roads; high volume intersections.

Other risk factors can be assigned 0-2 points. This category provides for two additional points to reflect site conditions or other factors that you feel contribute to a higher overall risk level. These might include aspects such as newly exposed trees that might not be wind firm; abnormal soil moisture levels that would not normally be seen on this site; the proximity of heavy machinery on this or an adjacent site that might cause adverse vibration levels; and any species specific issues that are not covered elsewhere.

Trees with hazard ratings from three to six are low risk, seven to nine are moderate risk, and ratings of ten to twelve are high risk. A rating of 12 is the most extreme possible and would represent imminent failure with catastrophic results.

Each tree was provided with a tree risk rating. Nine hundred and fifty-one trees (951), or 93.1%, present a low level of risk to the surrounding targets. Sixty-seven (67) trees, or 6.6%, present a moderate level of risk and three (3) trees, or .3%, present a high level of risk. Trees presenting the high level of risk are located in Lincoln (1) and Pioneer (2) parks. Thirty-four (34) of the inventoried trees, or 3.3%, are recommended for removal. Lincoln Park contains 16, or 47%, of the trees recommended for removal.

LOCATION

Individual tree locations were determined through a number of methods including: Completing a visual estimate using aerial photos or detailed ground measurements and through the use of a Global Positioning System (GPS). Each tree location is recorded on a map and assigned a number for entry into the database which correlates to the map. Trees are labeled in the field with a metal identification tags for future identification.

The placement of the tag on the tree was chosen for ease of viewing and to discourage tampering. Tags were placed between five and eight feet above grade on trees greater than four inches in diameter. On trees smaller than four inches in diameter, tags were attached using wire to secure it to the tree's canopy or the tag was placed at the base where the diameter is greatest. GPS and GIS information for each tagged tree was collected using a Trimble™ GeoExplorer XT handheld GPS unit with TerraSync™ and GPS Pathfinder® Office.

A custom database was developed utilizing Microsoft Access 2007 to view, edit and maintain records for each tree. Information included in the database includes: identification number, Latin binomial, common name, diameter measured at 54 inches above grade (DSH), health and structural condition rating, primary and secondary maintenance requirements, removal recommendations, and general notes.

IDENTIFICATION

Individual trees are identified by common and botanical names (genus and species and cultivar). Each tree is numbered in sequence by park or area.

AGE AND SIZE CLASSIFICATION

Tree trunk diameter is an indicator of the relative age of the tree. Collectively, this information provides insight into the maturity distribution for each species. Diameter is measured at 4 -1/2 feet above the ground or diameter-standard-height (DSH).

Tree size ranged from young trees with a one inch DSH to mature trees greater than 36 inches DSH. The number of trees per age/size class is:

Young/small

- less than six inches DSH = 29%, 295 trees

- six to 12 inches DSH = 25%, 251 trees

Mature/medium

- 12 to 18 inches DSH = 15%, 152 trees
- 18 to 24 inches DSH = 11%, 113 trees

Mature/large

- 24 to 36 inches DSH = 17%, 178 trees
- greater than 36 inches DSH = 3%, 32 trees

MANAGEMENT RECOMMENDATIONS

Management Requirements were based on risk assessment, mitigation needs, and return of cost investment. The classification for each action is labeled in the database as: Requirement 1, 2 or 3.

Each management requirement was then prioritized based on the time frame for when the action should be addressed. The priority for action includes:

Extreme: Action should be addressed in the next few weeks to months. Five trees were given Extreme maintenance priority actions including removal, cabling parts, root crown work, and additional testing to determine the extent of decay.

High: Actions should be addressed within Year 1. Ninety-one (91) High priority maintenance actions were assigned to the trees. Maintenance actions include canopy work, cabling, re-setting poorly planted trees, removal of high risk trees, aerial inspection, monitoring, removing growth obstructions, watering, reducing trip/fall hazards, and additional testing and analysis.

Medium: Actions should be addressed in Years 2 and 3. Three hundred and ninety-three (393) Medium priority maintenance actions were assigned to the trees. Maintenance actions include soil and canopy work, cabling, mulching, removing planting stakes, removing invasive weeds, turf removal, monitoring, and additional testing and analysis.

Low: Actions should be addressed in Years 4 and 5. One hundred and eighty-four (184) Low priority maintenance actions were assigned. Maintenance actions include soil and canopy work, cabling, sidewalk concrete work, turf removal, mulching, monitoring, and additional testing and analysis.

None: No maintenance requirements are needed. Three hundred and forty-nine trees (349) received no priorities for action. However, observations were noted for circumstances that may develop into an issue over time. These circumstances should be monitored in the future as time and money allows. Potential future issues include overhead utility wires, growth obstructions, sidewalk issues, repeated sun scald, and poorly pruned trees.

RISK TREE REMOVAL AND PRUNING MITIGATION

Trees lose vigor and die from natural causes such as disease and insect pathogens, weather conditions, and from physical injury due to vehicles, vandalism, poisoning, and root disturbance. Trees should be removed or pruned to: Reduce safety risk to persons and property, eliminate breeding sites for pests, and to improve site appearance.

Remove the risk altogether if possible by cutting off one or more branches, removing dead wood, or possibly removing the entire tree. Extreme risk situations (10-12 points) should be closed off until the risk is abated.

Modify the risk of failure probability. In some cases it may be possible to reduce the probability of failure by adding mechanical support in the form of cables braces or props.

Modify the risk rating by moving the target. Risk ratings can sometimes be lowered by moving the target so that there is a much lower probability of the defective part striking anything. Moving the target should generally be seen as an interim measure.

Retain and monitor. This approach is used where some defects have been noted but they are not yet serious and the present risk level is only moderate.

RECOMMENDED ACTIONS

Each prioritized management requirement contains a Recommended Action. The requirement field in the specific park tree tables is left blank if no action is necessary now or into the foreseeable future. The following is a list of actions and a description of meaning:

Mulch: Apply a two to three inch deep layer of aged woodchip mulch radiating out from the base of each tree a minimum of 24 inches. The mulch should remain at least six inches away from the base of the tree to discourage organic matter from building up over the root flare. The mulch layer should be replenished with an additional inch annually.

Removal of Turf: Turf should be removed within a four foot diameter around the base of each tree to decrease competition, improve the growing environment, and reduce issues resulting from maintaining turf (mower damage). Turf can be removed by hand or with sheet mulching and should be done prior to the application of mulch.

Air Spade: This tool is recommended where improving the soil structure around the tree will benefit tree health. When soils are heavy and compacted, fine root development can be reduced. Breaking up these soil and incorporating compost into the upper several inches of the soil layer can stimulate root growth. This should be topped off with a mulch woodchip layer.

Treatments: The use of chemicals to control insects or disease is recommended where signs of a pest or pathogen were observed or trees with high susceptibility were noted. The decision to apply preventative treatments should be made by the Director, who will have greater knowledge of outbreaks in the City that may spread to inventoried trees.

- Dutch Elm Disease: There are several American elm trees in the City that are susceptible to this disease. The disease can be dispersed over great distances by an insect vector. These trees can be treated with the Arbotect Macro-Infusion™ system that provides a preventative treatment for three years. After three years, the trees will need to be retreated.

- Cherry Bark Tortrix A small moth that can girdle a tree if the population becomes severe. Trees with a low level outbreak can be monitored or sprayed at the time of observation with a Pyrethrum-based insecticide.

Water: Trees requiring water are located in the downtown area or are newly planted trees that are not established. The simplest means for providing irrigation is to install water bags (Treegator™ slow release watering bags) at the base. These bags allow for a slow steady drip of water to the root crown from holes in the bottom of the bag. The bags can be filled up once a week or as needed based on environmental factors.

Cable: The installation of a dynamic cabling system will allow poorly structured trees to continue to grow and optimize for the weakness, while reducing the potential risk to surrounding targets. Dynamic cables need to be replaced every eight to ten years.

Pruning: All pruning should conform to the standards established in the American National Standards Institute ANSI: 300 for Tree Care Operations:

- Crown clean: Pruning to remove dead, diseased, damaged, and broken parts in the tree canopy that may impact the surrounding area or damage the tree.
- Clearance prune: Clearance needed over roadways (14 foot height), walkways (8 foot height), and away from structures (4 foot distance). Typical clearance from primary power lines (10 foot distance).
- Structural prune: Young trees with minor structural issues and previously mal-pruned trees requiring additional pruning to correct developing issues. Young street trees with low primary scaffold branches that will encroach into the walkway should be pruned while still young to set the lowest permanent branch.
- Crown reduction: Reducing the height and/or spread (end weight reduction) of the canopy will decrease the potential for windthrow or branch failure under severe loading events. Crown reduction is suitable for trees that should begin to have retrenchment pruning, over several pruning events, to improve structure and mitigate future risk.

Testing:

- Resistograph: Micro-resistance drill testing to determine structural integrity of tree's internal wood structure.
- Aerial Inspection: Structural defects visible from the ground that are cause for concern and require additional information to determine extent of issue and additional recommendations.
- Soil Test: Where no visible signs of a organism exist, but symptoms in tree canopy suggest the possible presence of a soil-borne pathogen or nutrient deficiency. Testing may determine cause of symptoms.

Monitor: Trees with one or more defects that are established but unlikely to result in failure for several years should be monitored. Corrective action may be useful to prevent future problems as time and money allow. All trees should be monitored after severe and unusual storm events.

Remove ivy: English ivy is an invasive weed that can cause structural abnormalities, increase force loading, and girdle trees, if it is allowed to mature. Clear the lower portion of the trunk

of any climbing vines and a five foot diameter area around the base of the root crown.

OTHER RECOMMENDATIONS

Girdling Roots: Roots that grow around the trunk rather than laterally and are restricting the flow of water and nutrients in the tree. Remove girdling roots to improve longevity and health of tree. Trees with greater than 40% of the circumference compromised by a large diameter root may no longer be treatable. These trees should be monitored and might be considered for future removal.

Expose Buried Root Flares: Root flare of the tree is located below grade. This can lead to decay, reduced vitality, and girdling roots. Remove soil around tree to expose flare.

Remove Planting Stakes: Young and newly establishing trees should not be staked longer than one year following the planting. Staking allowed existing longer than this can cause tree to develop structural issues and dependence on the stakes for support. Potential exists to girdle trunk over time. Metal cages surrounding young trees downtown were also used for staking support. These cages have damaged multiple trees as they rub against the metal edges.

Remove growth obstruction: Foreign debris attached or lodged in the tree was noted in several circumstances. Debris includes metal plates, signs, and wires. The debris acts as a growth obstruction to the tree or presents a hazard to those near the tree. Christmas lights strung in downtown trees should be removed and reset in order to avoid the potential for obstructing growth and girdling the trunk. In one case in Centennial Park, the extension cord for the holiday lights has significantly damaged the trunk of a tree.

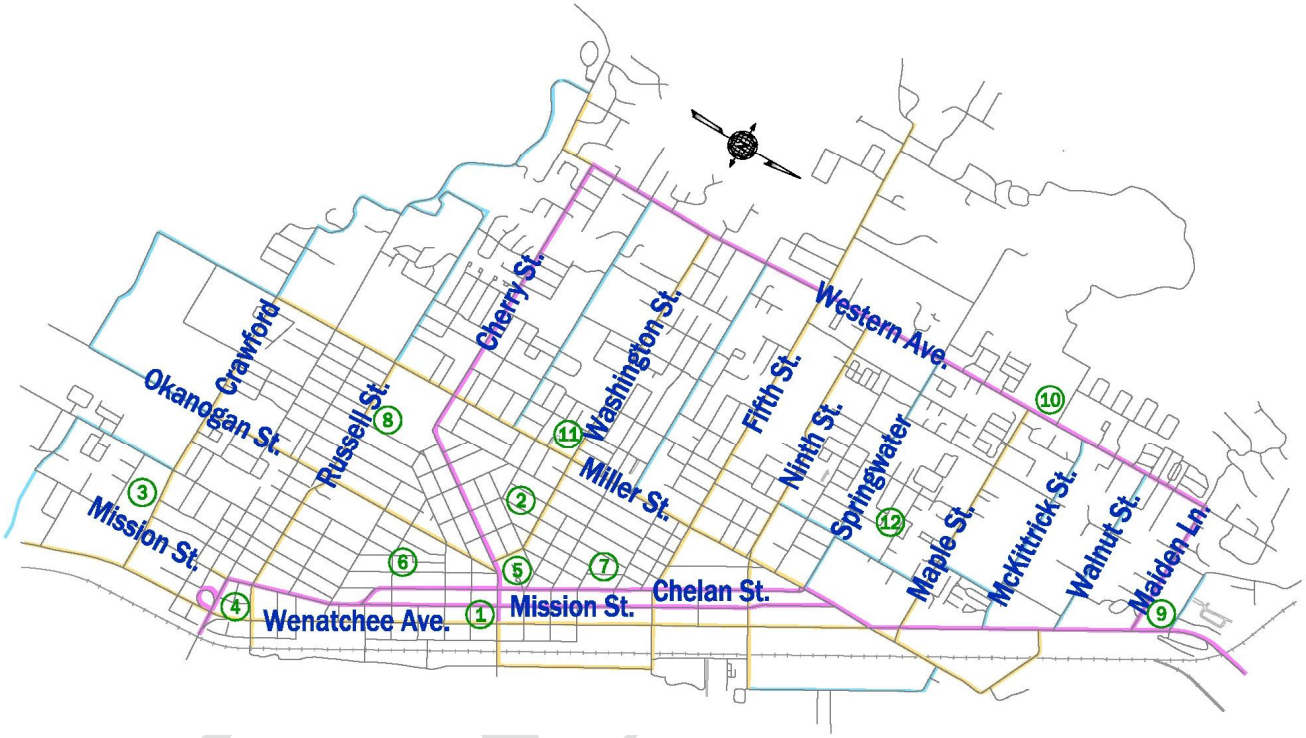
Habitat Snag: Create a habitat structure for wildlife by reducing the height and removing the growing portions of the tree. Snags can be accompanied by signs to inform the public of what the City is doing and why a portion of the tree will be left to remain.

Pitch Moth: The pitch moth is an aesthetic pest of many conifer tree species. The main effect of larval feeding is the production of copious amounts of unsightly resin. The larvae cause very little injury to the tree's cambium layer.

Sidewalk – Issues: Conditions are noted in the inventory where the sidewalk is lifted, cracked, or becoming a growth obstruction to the base of the tree. Sidewalks lifted up to one inch were considered a low trip/ fall hazard; greater than one but less than three inches, a moderate trip/ fall hazard; and three inches or greater, a high trip/ fall hazard. The risk can be mitigated by a combination of grinding of the existing pavement and adding patching material to smooth the grade transition. Sidewalks and planting pits that are obstructing growth need to be widened to accommodate the increasing size of the tree.

Emerald Ash Borer: An item, not included in the Recommended Actions but should be mentioned, is the Emerald Ash Borer. Although not yet present in Washington State, this non-native insect pest is currently devastating ash species in the Midwest. It is recommended that maintenance personnel follow developments with regard to the spread of this very destructive insect. The population of ash species in the City is large and advance warning of the arrival may allow trees to be treated and protected.

PARK LOCATION MAP



1. Centennial Park
2. Chase Park
3. Lincoln Park
4. Locomotive Park
5. Memorial Park
6. Methow Park
7. Pennsylvania Park
8. Pioneer Park
9. Rainbow Park
10. Rotary Park
11. Washington Park
12. Wentachi Park
13. Western Hills Park

CENTENNIAL PARK

DESCRIPTION

Centennial Park is a one acre park located in Downtown Wenatchee. It was acquired by the City in 1992 and is the former site of the Columbia hotel which burned down. The park features a stage, benches, restrooms, open grassy areas and trees.

ANALYSIS

- Young trees dominate age class
- Extension cords in the tree canopies used for hanging holiday lights are girdling the main trunks.
- Areas below shade trees are often occupied by people in hot weather.
- Moderate target area use.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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
609	Centennial	Acer platanoides	Norway maple	8	small	$1,775	No	4		Mulch	Low - Yr 4-5
610	Centennial	Quercus macrocarpa	Burr oak	13	medium	$4,832	No	4		structural prune	Med- Yr 2-3
611	Centennial	Quercus macrocarpa	Burr oak	12	small	$4,113	No	4			
612	Centennial	Acer rubrum	Red maple	12	small	$2,893	No	4	elect xmas	structural prune	Med- Yr 2-3
613	Centennial	Acer rubrum	Red maple	9	small	$1,845	No	4	xmas lights girdling upper trunk	structural prune	High- Yr 1
614	Centennial	Acer rubrum	Red maple	4	small	$480	No	4			

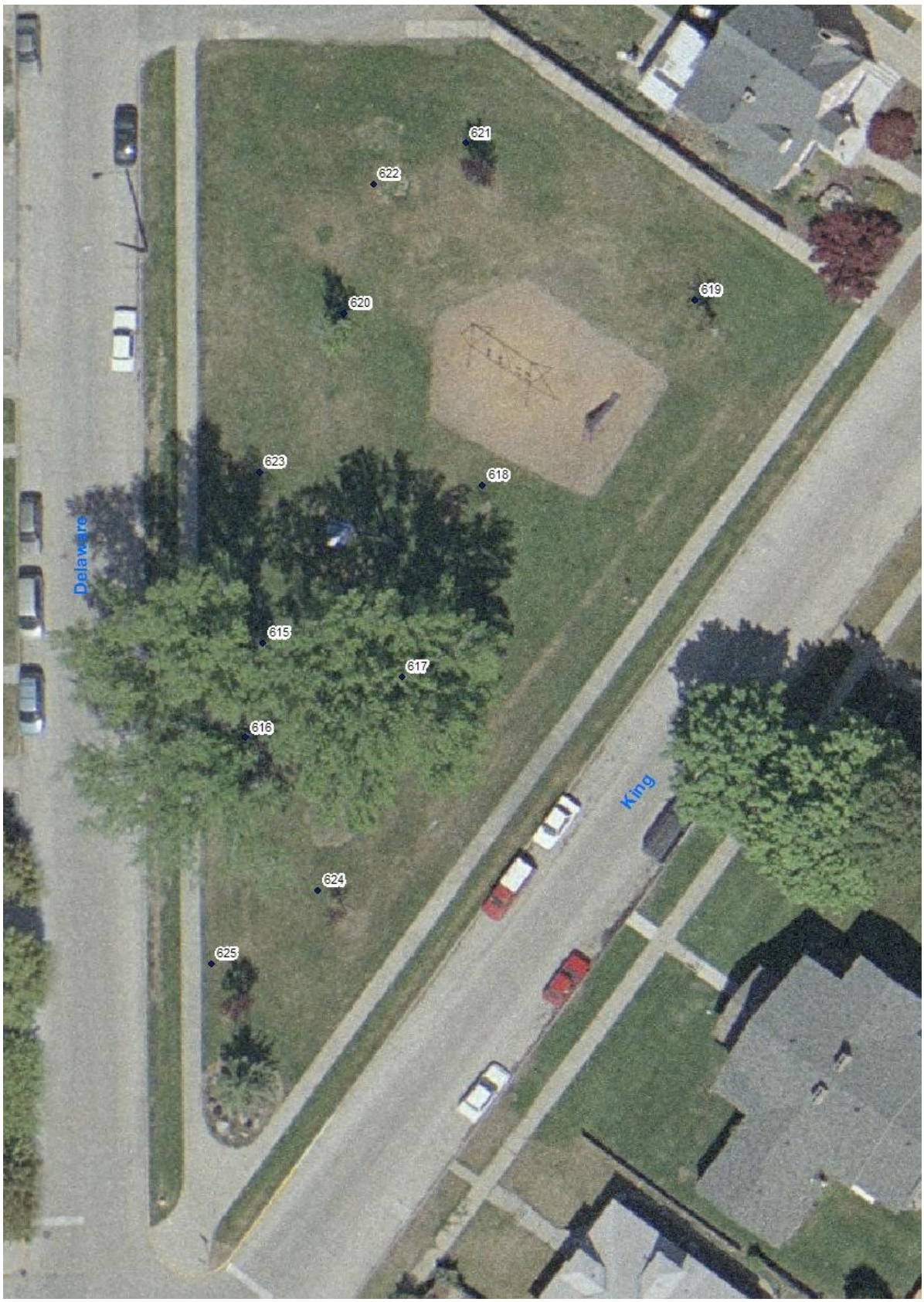
CHASE PARK

DESCRIPTION

Mable Chase donated her former home site for the .52 acre park in 1909. The park features a picnic area and children's play equipment, trees and large grassy area.

ANALYSIS

- Mixed age class.
- Newly planted trees with mower damage and turf to base.
- One newly planted tree is dead.
- Moderate target area use interior and along perimeter.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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
615	Chase	Acer sacharinum	Sugar maple	29	large	$15,758	No	6		Mulch	Low - Yr 4-5
616	Chase	Acer sacharinum	Sugar maple	29	large	$15,758	No	6		Mulch	Low - Yr 4-5
617	Chase	Acer sacharinum	Sugar maple	43	large	$30,289	No	6		Mulch	Low - Yr 4-5
618	Chase	Liquidambar styraciflua	Sweet gum	43	large	$37,865	No	3	girdle rt-monitor	Mulch	Med- Yr 2-3
619	Chase	Acer rubrum	Red maple	5	small	$535	No	3	mechanical damage	Mulch	Med- Yr 2-3
620	Chase	Acer rubrum	Red maple	9	small	$1,521	No	3		Mulch	Med- Yr 2-3
621	Chase	Acer platanoides	Norway maple	7	small	$1,045	No	3	mower	Mulch	Med- Yr 2-3
622	Chase	Betula jacquemontii	Jacuemontii Birch	1	small	$480	Yes	3	mower, broken at base	Other	Low - Yr 4-5
623	Chase	Acer platanoides	Norway maple	2	small	$480	No	3	mower	Mulch	Low - Yr 4-5
624	Chase	Acer platanoides	Norway maple	3	small	$480	No	3	mower	Mulch	Low - Yr 4-5
625	Chase	Prunus x cistena	Cistena plum tree	6	small	$931	No	3	mower	Mulch	Low - Yr 4-5

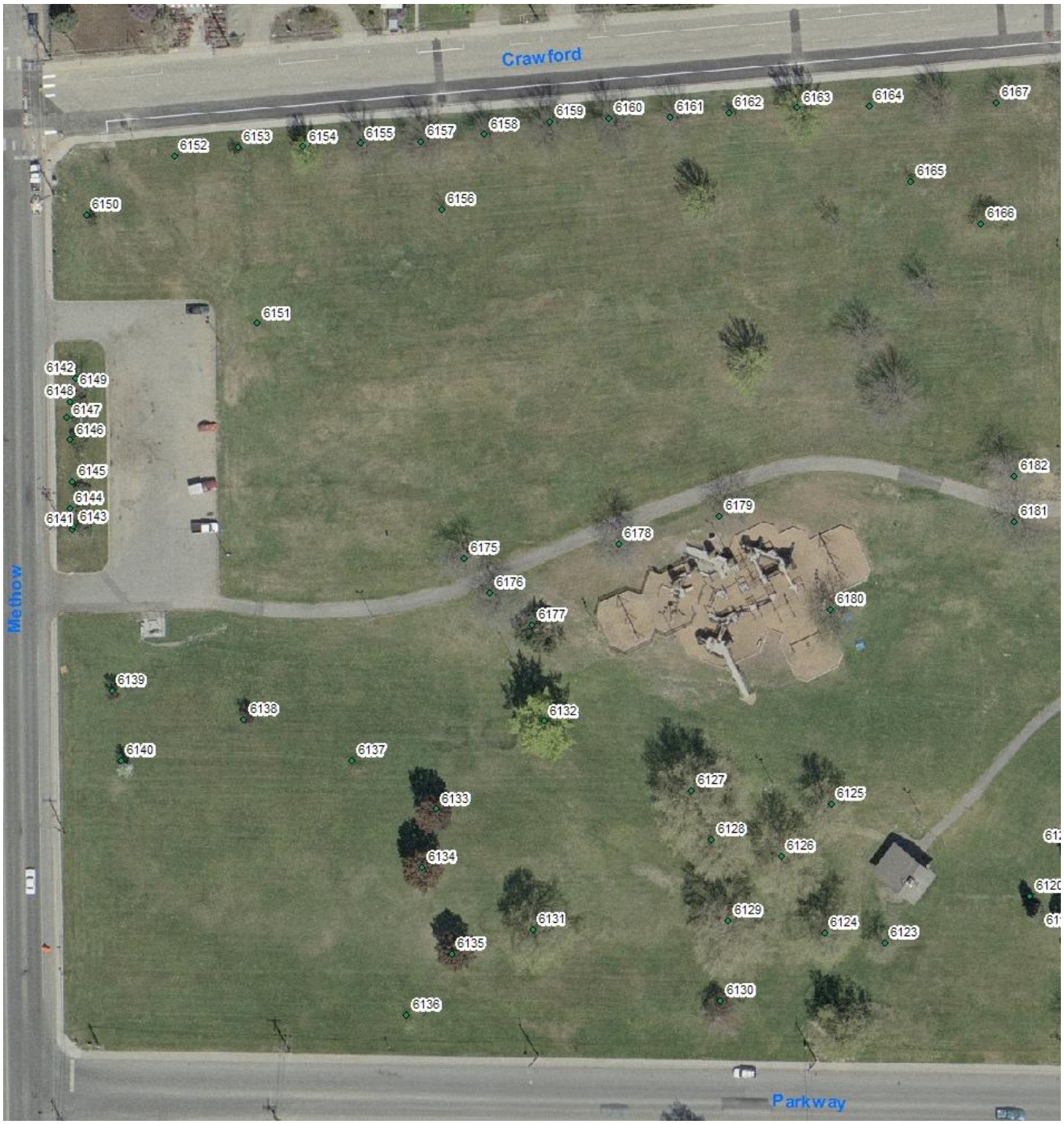
LINCOLN PARK

DESCRIPTION

Lincoln Park was acquired by the City in 1958. The 22 acre park is constructed on a former landfill and features athletic fields, picnic shelter children's play equipment, ban stand, grassy areas and shade trees.

ANALYSIS

- Mixed age classes.
- Numerous trees in the southeast portion of the site have root damage issues.
- Soil compaction prevalent near the amphitheater.
- Many trees along the roadways have root flares buried below grade.
- A mature pine tree west of the play area is being damaged by children climbing on the small diameter trunks.
- Target-area use is Moderate in the interior near structures and along perimeter, Infrequent in park interior.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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6073	Lincoln	Pinus contorta	Shore pine	10	small	$2,207	No	4			
6074	Lincoln	Abies lasiocarpa	Alpine fir	12	small	$2,179	No	4			
6075	Lincoln	Acer platanoides	Norway maple	13	medium	$4,403	No	4			
6076	Lincoln	Acer platanoides	Norway maple	19	medium	$7,424	No	0			
6077	Lincoln	Pinus contorta	Shore pine	19.5	medium	$6,104	No	6	DBH 17+14, Cabling is optional	Cable	Low - Yr 4-5
6078	Lincoln	Pinus contorta	Shore pine	14	medium	$3,990	No	4	Broken Scaffold Branch	structural prune	Low - Yr 4-5
6079	Lincoln	Platanus x acerifolia	London plane	27	large	$22,533	No	5			
6080	Lincoln	Fraxinus pennsylvanica	Green ash	23	medium	$13,533	No	4	Girdled Roots		
6081	Lincoln	Fraxinus excelsior	European ash	21	medium	$8,737	No	4	Lots of dead wood in canopy	Crown clean	Low - Yr 4-5
6082	Lincoln	Gleditsia triacanthos	Honey locust	16	medium	$6,565	No	4	Damaged root flare and and lost leader		
6083	Lincoln	Gleditsia triacanthos	Honey locust	20	medium	$10,223	No	4			
6084	Lincoln	Gleditsia triacanthos	Honey locust	19	medium	$9,219	No	0			
6085	Lincoln	Gleditsia triacanthos	Honey locust	2	small	$480	No	4		structural prune	Med- Yr 2-3
6086	Lincoln	Gleditsia triacanthos	Honey locust	14	medium	$4,323	Yes	4	Failed co-dom stem; removal before 10 yr	Removal	Low
6087	Lincoln	Robinia pseudoacacia	Black locust	23	medium	$10,703	No	0	Multi-stem clump		
6088	Lincoln	Robinia pseudoacacia	Black locust	16.5	medium	$5,591	No	0	Multi stem trunks measure 12", 14"		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6089	Lincoln	Ulmus spp.	Elm	24	large	$3,639	Yes	10	FAILED at root plate	Cable	Extreme
6090	Lincoln	Pinus contorta	Shore pine	13	medium	$3,690	No	4			
6091	Lincoln	Robinia pseudoacacia	Black locust	8	small	$887	Yes	7	Remove	Other	High- Yr 1
6092	Lincoln	Robinia pseudoacacia	Black locust	21.5	medium	$9,380	No	4	3 stemmed group		
6093	Lincoln	Robinia pseudoacacia	Black locust	13	medium	$3,531	No	4			
6094	Lincoln	Ulmus spp.	Elm	18	medium	$6,608	No	4			
6095	Lincoln	Ulmus procera	English elm	12	small	$3,022	No	4	5-8 siberian elm		
6096	Lincoln	Ulmus pumila	Siberian elm	9	small	$1,381	No	4			
6097	Lincoln	Ulmus pumila	Siberian elm	22	medium	$6,774	No	4			
6098	Lincoln	Ulmus pumila	Siberian elm	16	medium	$3,670	No	4			
6099	Lincoln	Ulmus pumila	Siberian elm	16	medium	$3,584	No	5	Multi stem DBH 9",12"; poor form		
6100	Lincoln	Robinia pseudoacacia	Black locust	13	medium	$3,310	No	4	on eroding slope		
6101	Lincoln	Robinia pseudoacacia	Black locust	9.5	small	$954	Yes	5	stem dbh: 4-6-6-8, basal damage	Other	Med- Yr 2-3
6102	Lincoln	Ulmus pumila	Siberian elm	21.5	medium	$6,479	Yes	7	DBH 18-17; remove over next 20 years	Other	Med- Yr 2-3
6103	Lincoln	Robinia pseudoacacia	Black locust	18	medium	$4,130	Yes	7	remove over next 5 years	Other	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6104	Lincoln	Ulmus pumila	Siberian elm	35	large	$16,276	No	7	basal decay	Monitor	Med- Yr 2-3
6105	Lincoln	Salix nigra	Black willow	46	large	$30,326	No	6	Decay at Base, targe is bldg	Test	Med- Yr 2-3
6106	Lincoln	Ulmus pumila	Siberian elm	20	medium	$5,629	Yes	6	16-17-21-20-22-10-18 Remove over 20 yrs	Other	Low - Yr 4-5
6107	Lincoln	Ulmus pumila	Siberian elm	37	large	$14,269	Yes	9	Roots trashed, crack in main leader	Other	Extreme
6108	Lincoln	Gleditsia triacanthos	Honey locust	13	medium	$4,052	No	4	13-5-10; poor canopy		
6109	Lincoln	Carpinus spp.	Common hornbeam	9	small	$2,283	No	0	common carpinus with basal damage		
6110	Lincoln	Pinus mugo	Mugo pine	8	small	$1,075	No	0	5-6 three shrubs to south, pitch moth		
6111	Lincoln	Pinus mugo	Mugo pine	6.5	small	$722	No	0	4-6, severe pitch moth infestation		
6112	Lincoln	Carpinus spp.	Common hornbeam	10	small	$1,846	Yes	4	In decline, consider Removal	Monitor	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6113	Lincoln	Pinus mugo	Mugo pine	6	small	$618	No	0	6 small mugo shrubs near base,pitch moth		
6114	Lincoln	Pinus mugo	Mugo pine	7	small	$826	No	4			
6115	Lincoln	Carpinus spp.	Common hornbeam	13	medium	$4,676	No	4	Basal Trunk Damage		
6116	Lincoln	Carpinus spp.	Common hornbeam	16	medium	$7,034	No	7	trunk wound with decay, basal damage	Monitor	Med- Yr 2-3
6117	Lincoln	Carpinus spp.	Common hornbeam	17	medium	$7,936	No	5	girdled root		
6118	Lincoln	Fraxinus excelsior	European ash	13	medium	$3,089	No	5	girdled root		
6119	Lincoln	Fraxinus excelsior	European ash	24	large	$10,916	No	5	girdled		
6120	Lincoln	Chamaecyparis nootkatensis	Yellow cedar	12	small	$3,334	No	5	Multi Stem 12", 8", remove vine in tree		
6121	Lincoln	Chamaecyparis nootkatensis	Yellow cedar	16	medium	$6,309	No	5	multi stems 16",6",5"		
6122	Lincoln	Chamaecyparis nootkatensis	Yellow cedar	12	small	$3,572	No	5	Multi Stems 12",6",6",5",4",4", 8"		
6123	Lincoln	Quercus palustris	Pin oak	10	small	$2,963	No	5			
6124	Lincoln	Quercus palustris	Pin oak	20	medium	$12,345	No	5	Nice tree	Crown clean	Med- Yr 2-3
6125	Lincoln	Platanus x acerifolia	London plane	19	medium	$11,873	No	5			
6126	Lincoln	Platanus x acerifolia	London plane	22	medium	$15,923	No	5			
6127	Lincoln	Platanus x acerifolia	London plane	31	large	$30,915	No	5			
6128	Lincoln	Platanus x acerifolia	London plane	16	medium	$8,448	No	5			
6129	Lincoln	Platanus x acerifolia	London plane	27	large	$23,941	No	5			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6130	Lincoln	Fagus sylvanica	European beech	14	medium	$5,723	No	5	Unusual Specimen	Crown clean	Low - Yr 4-5
6131	Lincoln	Quercus palustris	Pin oak	21	medium	$13,593	No	5			
6132	Lincoln	Quercus palustris	Pin oak	23	medium	$16,285	No	5			
6133	Lincoln	Acer platanoides	Norway maple	16	medium	$7,054	No	5			
6134	Lincoln	Acer platanoides	Norway maple	18	medium	$8,892	No	5	girdled root		
6135	Lincoln	Acer platanoides	Norway maple	13	medium	$4,696	No	5	buried flare		
6136	Lincoln	Quercus palustris	Pin oak	5	small	$874	No	5			
6137	Lincoln	Quercus palustris	Pin oak	6	small	$1,055	No	5	Buried, Loose	Air Spade	Med- Yr 2-3
6138	Lincoln	Prunus cerasifera	Plum tree	6	small	$966	No	4	Bad Pruning		
6139	Lincoln	Prunus cerasifera	Plum tree	6	small	$966	No	4	Bad pruning		
6140	Lincoln	Pyrus calleryana	Callery pear	8	small	$1,597	No	4		structural prune	Low - Yr 4-5
6141	Lincoln	Fraxinus excelsior	European ash	8	small	$1,420	No	4	Buried flare		
6142	Lincoln	Fraxinus excelsior	European ash	11	small	$2,564	No	4	Buried flare		
6143	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	6x8 mound, pitch moth		
6144	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	4x6 mound, pitch moth		
6145	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	6x10, pitch moth		
6146	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	7x10, pitch moth		
6147	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	5x6, pitch moth		
6148	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	6x8, pitch moth		
6149	Lincoln	Pinus mugo	Mugo pine	5	small	$724	No	0	6x8, pitch moth		
6150	Lincoln	Prunus cerasifera	Plum tree	6	small	$966	No	4	bad pruning	structural prune	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6151	Lincoln	Fraxinus pennsylvanica	Green ash	4	small	$549	No	0	scalded, vandals		
6152	Lincoln	Fraxinus excelsior	European ash	4	small	$480	Yes	0	Buried, loose, damaged trunk	Other	Low - Yr 4-5
6153	Lincoln	Fraxinus americana	White ash	5	small	$632	No	0	raywood, not a long term tree, insects		
6154	Lincoln	Fraxinus latifolia	Oregon ash	13	medium	$3,583	No	4	scale		
6155	Lincoln	Fraxinus excelsior	European ash	22	medium	$9,199	No	4			
6156	Lincoln	Fraxinus excelsior	European ash	7	small	$557	No	0	Buried, Basal Damage, Removal optional	Removal	Low
6157	Lincoln	Gleditsia triacanthos	Honey locust	2	small	$480	No	0			
6158	Lincoln	Fraxinus excelsior	European ash	16	medium	$4,931	No	4			
6159	Lincoln	Fraxinus excelsior	European ash	23	medium	$10,034	No	4			
6160	Lincoln	Gleditsia triacanthos	Honey locust	3	small	$480	No	0			
6161	Lincoln	Fraxinus latifolia	Oregon ash	3	small	$480	Yes	0	Roots Loose, Removal		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6162	Lincoln	Fraxinus excelsior	European ash	8	small	$1,065	Yes	0	Optional Removal, Basal Damage,poor form		
6163	Lincoln	Fraxinus pennsylvanica	Green ash	18	medium	$7,801	No	4	Basal damage, girdling root	Air Spade	Low - Yr 4-5
6164	Lincoln	Fraxinus pennsylvanica	Green ash	7	small	$1,247	No	4	Basal Damage	structural prune	Low - Yr 4-5
6165	Lincoln	Fraxinus excelsior	European ash	6	small	$645	Yes	4	Extreme Basal Damage, Scale		
6166	Lincoln	Salix babylonica	Corkscrew willow	16	medium	$4,812	No	4	Root Damage	structural prune	Med- Yr 2-3
6167	Lincoln	Fraxinus excelsior	European ash	17	medium	$5,551	No	4	Buried, Basal Damage	Air Spade	Low - Yr 4-5
6168	Lincoln	Abies lasiocarpa	Alpine fir	4	small	$430	No	0			
6169	Lincoln	Abies lasiocarpa	Alpine fir	5	small	$562	No	0	Multi Stem 5", 5"		
6170	Lincoln	Fagus sylvanica	European beech	8	small	$1,512	Yes	0	Extreme Basal Damage, Remove		
6171	Lincoln	Platanus x acerifolia	London plane	15	medium	$7,884	No	4			
6172	Lincoln	Platanus x acerifolia	London plane	9	small	$2,727	No	4	Basal Damage, Not long term tree		
6173	Lincoln	Fraxinus excelsior	European ash	6	small	$480	Yes	0	Severe Trunk Damage, Remove	Other	Med- Yr 2-3
6174	Lincoln	Fraxinus latifolia	Oregon ash	15	medium	$4,728	No	0	Buried Base	Air Spade	Low - Yr 4-5
6175	Lincoln	Gleditsia triacanthos	Honey locust	17	medium	$7,936	No	4			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6176	Lincoln	Gleditsia triacanthos	Honey locust	16	medium	$7,034	No	4			
6177	Lincoln	Pinus mugo	Mugo pine	9	small	$2,047	No	0	SPECIMEN plant 6"6"6"5"8"9"9" 5"	Crown clean	High- Yr 1
6178	Lincoln	Gleditsia triacanthos	Honey locust	20	medium	$10,953	No	4	Nice tree	Crown clean	Med- Yr 2-3
6179	Lincoln	Gleditsia triacanthos	Honey locust	15	medium	$6,202	No	4	Nice specimen	Crown clean	Med- Yr 2-3
6180	Lincoln	Gleditsia triacanthos	Honey locust	18	medium	$8,872	No	4	Nice specimen	Crown clean	Med- Yr 2-3
6181	Lincoln	Gleditsia triacanthos	Honey locust	14	medium	$5,404	No	4			
6182	Lincoln	Gleditsia triacanthos	Honey locust	21	medium	$12,063	No	4			
6183	Lincoln	Prunus cerasifera	Plum tree	5	small	$480	Yes	0	Root Rot, REMOVE	Remove	High
6184	Lincoln	Prunus cerasifera	Plum tree	6	small	$852	No	0			
6185	Lincoln	Fraxinus excelsior	European ash	18	medium	$6,195	No	4	Buried Base, girdling?	Air Spade	Med- Yr 2-3
6186	Lincoln	Acer platanoides	Norway maple	2	small	$480	No	0	Buried	Air Spade	Low - Yr 4-5
6187	Lincoln	Fraxinus pennsylvanica	Green ash	20	medium	$9,622	No	2	Buried	Air Spade	Low - Yr 4-5
6188	Lincoln	Fraxinus excelsior	European ash	18	medium	$5,782	No	4	In decline	Air Spade	Med- Yr 2-3
6189	Lincoln	Picea spp.	Spruce	1	small	$430	No	0		Mulch	High- Yr 1
6190	Lincoln	Cornus florida	Florida dogwood	1	small	$480	No	0		Mulch	Med- Yr 2-3
6191	Lincoln	Acer sacharinum	Sugar maple	3	small	$480	No	0		Mulch	Med- Yr 2-3
6192	Lincoln	Acer rubrum	Red maple	2	small	$480	No	0			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6193	Lincoln	Acer sacharinum	Sugar maple	3	small	$480	No	0			
6194	Lincoln	Acer platanoides	Norway maple	2	small	$480	No	0			
6195	Lincoln	Fraxinus latifolia	Oregon ash	6	small	$1,023	No	0			
6196	Lincoln	Acer rubrum	Red maple	3	small	$480	No	0			

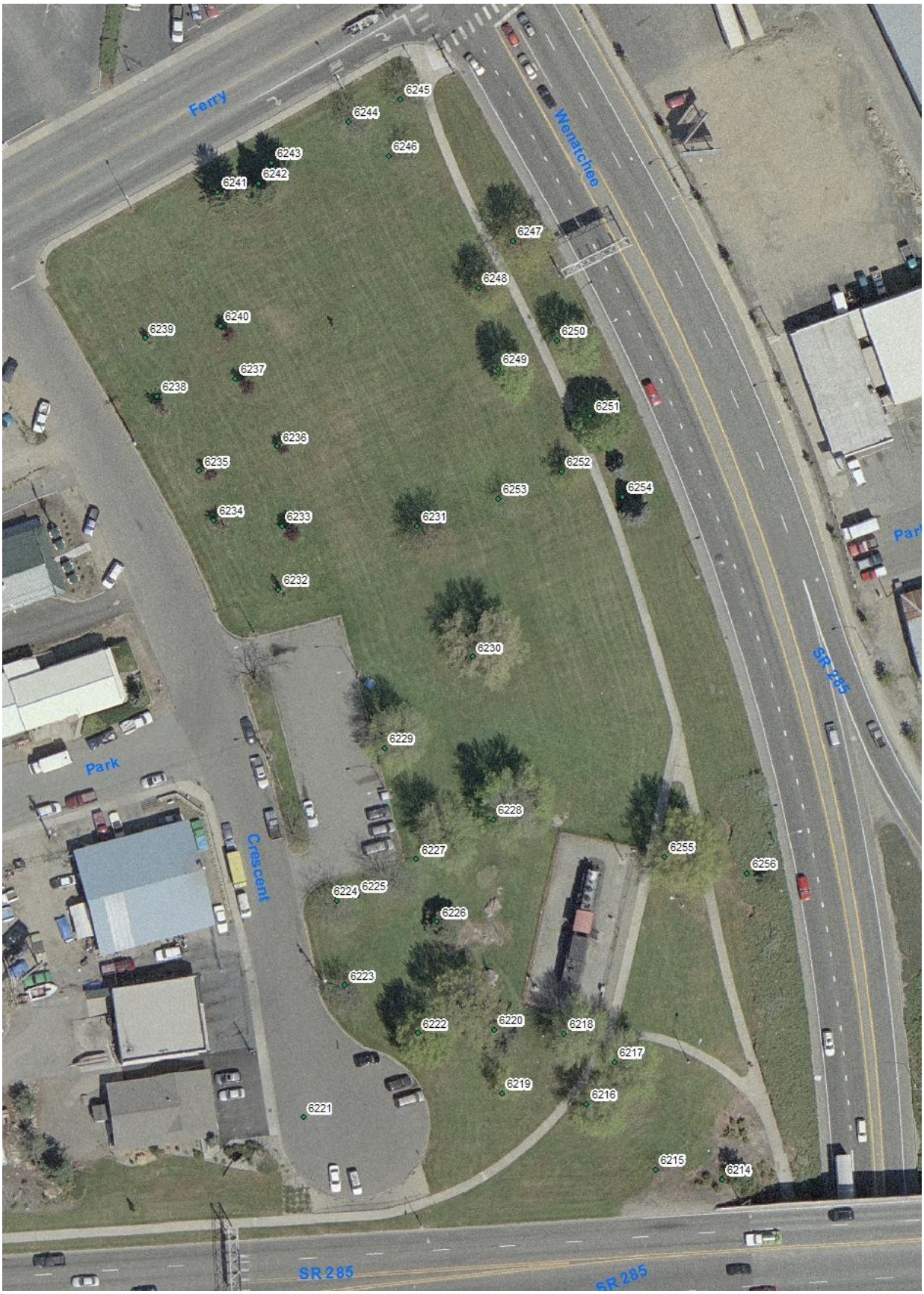
LOCOMOTIVE PARK

DESCRIPTION

Locomotive Park is a 15 acre park acquired by the City and the State in 1951 as part of the bridge approach project. It features landscaped area and a historical locomotive display.

ANALYSIS

- Mature trees dominate age class.
- Park is divided by roadway.
- South section of park receives Infrequent use.
- North section of park receives infrequent target area use in interior and moderate target area use along perimeter.
- Newly planted trees are in poor condition and have not established.
- One newly planted tree is dead.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Snohomish

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6197	Locomotive	Pinus jeffreyii	Jeffrey pine	22	medium	$14,254	No	0	Pitch Moth	Crown clean	Low - Yr 4-5
6198	Locomotive	Pinus jeffreyii	Jeffrey pine	23	medium	$15,560	No	0	Pitch Moth	Crown clean	Low - Yr 4-5
6199	Locomotive	Pinus jeffreyii	Jeffrey pine	18	medium	$8,489	No	0	Pitch Moth, Flagging	Crown clean	Low - Yr 4-5
6200	Locomotive	Pinus jeffreyii	Jeffrey pine	15	medium	$5,724	No	0	Pitch Moth, Flagging	Crown clean	Low - Yr 4-5
6201	Locomotive	Olea spp.	Olive	15	medium	$3,521	No	0	Large Scaffold branch broken		
6202	Locomotive	Fraxinus latifolia	Oregon ash	19	medium	$7,984	No	5	girdling roots		
6203	Locomotive	Fraxinus excelsior	European ash	19	medium	$7,346	No	5			
6204	Locomotive	Fraxinus latifolia	Oregon ash	15	medium	$5,043	No	5			
6205	Locomotive	Fraxinus latifolia	Oregon ash	17	medium	$6,430	No	5			
6206	Locomotive	Pinus jeffreyii	Jeffrey pine	21	medium	$12,984	No	5			
6207	Locomotive	Pinus jeffreyii	Jeffrey pine	17	medium	$8,542	No	5			
6208	Locomotive	Pinus jeffreyii	Jeffrey pine	20	medium	$11,790	No	5			
6209	Locomotive	Pinus jeffreyii	Jeffrey pine	20	medium	$11,790	No	5			
6210	Locomotive	Fraxinus latifolia	Oregon ash	17	medium	$6,430	No	5			
6211	Locomotive	Catalpa speciosa	Catalpa	18	medium	$6,669	No	5	catalpa	Crown clean	Med- Yr 2-3
6212	Locomotive	Catalpa speciosa	Catalpa	12	small	$3,002	No	5	catalpa	Crown clean	Med- Yr 2-3
6213	Locomotive	Ailanthus altissima	Tree of Heaven	11	small	$2,158	No	5	Allanthus - Heavy Seed, INVASIVE		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6214	Locomotive	Pseudotsuga menziesii	Douglas fir	9	small	$2,324	No	5			
6215	Locomotive	Abies lasiocarpa	Alpine fir	1	small	$430	No	5		Mulch	Med- Yr 2-3
6216	Locomotive	Fraxinus latifolia	Oregon ash	21	medium	$9,732	No	5			
6217	Locomotive	Betula jacquemontii	Jacuemontii Birch	2	small	$480	Yes	0	dead	Removal	High
6218	Locomotive	Fraxinus latifolia	Oregon ash	22	medium	$10,675	No	5			
6219	Locomotive	Quercus macrocarpa	Burr oak	9	small	$2,567	No	5	Muilti stem 5",9",		
6220	Locomotive	Pinus nigra	Austrian black pine	21	medium	$10,820	No	6	phototro pic, basal damage		
6221	Locomotive	Quercus macrocarpa	Burr oak	24	large	$20,044	No	5	NICE!		
6222	Locomotive	Quercus macrocarpa	Burr oak	21	medium	$15,357	No	5			
6223	Locomotive	Gleditsia triacanthos	Honey locust	16	medium	$7,503	No	5	buried base		
6224	Locomotive	Gleditsia triacanthos	Honey locust	16	medium	$7,503	No	5			
6225	Locomotive	Gleditsia triacanthos	Honey locust	17	medium	$8,465	No	5			
6226	Locomotive	Pinus contorta	Shore pine	15	medium	$4,266	No	5	Trunk Damage, crown full of debris	Crown clean	Med- Yr 2-3
6227	Locomotive	Fraxinus latifolia	Oregon ash	24	large	$12,672	No	5			
6228	Locomotive	Fraxinus latifolia	Oregon ash	28	large	$17,195	No	5	girdling root, cut	Crown clean	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6229	Locomotive	Fraxinus latifolia	Oregon ash	23	medium	$10,918	No	5	trunk damage, Co-dominant OK	Cable	Med- Yr 2-3
6230	Locomotive	Platanus x acerifolia	London plane	24	large	$20,044	No	5	girdling roots-CUT	Air Spade	Med- Yr 2-3
6231	Locomotive	Quercus macrocarpa	Burr oak	17	medium	$10,095	No	5			
6232	Locomotive	Pyrus calleryana	Callery pear	6	small	$914	No	4	leans	structural prune	Med- Yr 2-3
6233	Locomotive	Abies lasiocarpa	Alpine fir	2	small	$430	No	4		Mulch	Med- Yr 2-3
6234	Locomotive	Prunus cerasifera	Plum tree	9	small	$2,146	No	4			
6235	Locomotive	Prunus cerasifera	Plum tree	6	small	$909	No	4	poorly pruned, buried	structural prune	Med- Yr 2-3
6236	Locomotive	Prunus cerasifera	Plum tree	4	small	$480	No	4	buried at the base	structural prune	Med- Yr 2-3
6237	Locomotive	Prunus cerasifera	Plum tree	6	small	$909	No	4	buried at the base	structural prune	Med- Yr 2-3
6238	Locomotive	Prunus cerasifera	Plum tree	9	small	$2,146	No	4			
6239	Locomotive	Pyrus calleryana	Callery pear	6	small	$914	No	4			
6240	Locomotive	Prunus cerasifera	Plum tree	6	small	$909	No	4			
6241	Locomotive	Picea engelmannii	Engleman spruce	2	small	$430	No	4			
6242	Locomotive	Picea engelmannii	Engleman spruce	18	medium	$8,397	No	4			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6243	Locomotive	Picea engelmannii	Engleman spruce	12	small	$3,581	No	4	recovered from tipping, exposed roots		
6244	Locomotive	Gleditsia triacanthos	Honey locust	12	small	$4,248	No	4			
6245	Locomotive	Gleditsia triacanthos	Honey locust	12	small	$4,248	No	4			
6246	Locomotive	Gleditsia triacanthos	Honey locust	12	small	$4,248	No	4			
6247	Locomotive	Quercus macrocarpa	Burr oak	19	medium	$12,571	No	4	girdling root- CUT Root	Other	Med- Yr 2-3
6248	Locomotive	Quercus macrocarpa	Burr oak	13	medium	$5,939	No	4	buried		
6249	Locomotive	Fraxinus latifolia	Oregon ash	16	medium	$5,709	No	4			
6250	Locomotive	Fraxinus latifolia	Oregon ash	16	medium	$5,709	No	4			
6251	Locomotive	Tilia cordata	Linden	18	medium	$10,646	No	4			
6252	Locomotive	Quercus macrocarpa	Burr oak	8	small	$2,269	No	4			
6253	Locomotive	Gleditsia triacanthos	Honey locust	9	small	$2,435	No	4			
6254	Locomotive	Picea pungens	Colorado spruce	14	medium	$5,474	No	4			
6255	Locomotive	Quercus macrocarpa	Burr oak	33	large	$36,979	No	4		Crown clean	Med- Yr 2-3
6256	Locomotive	Pseudotsuga menziesii	Douglas fir	10	small	$2,814	No	4			

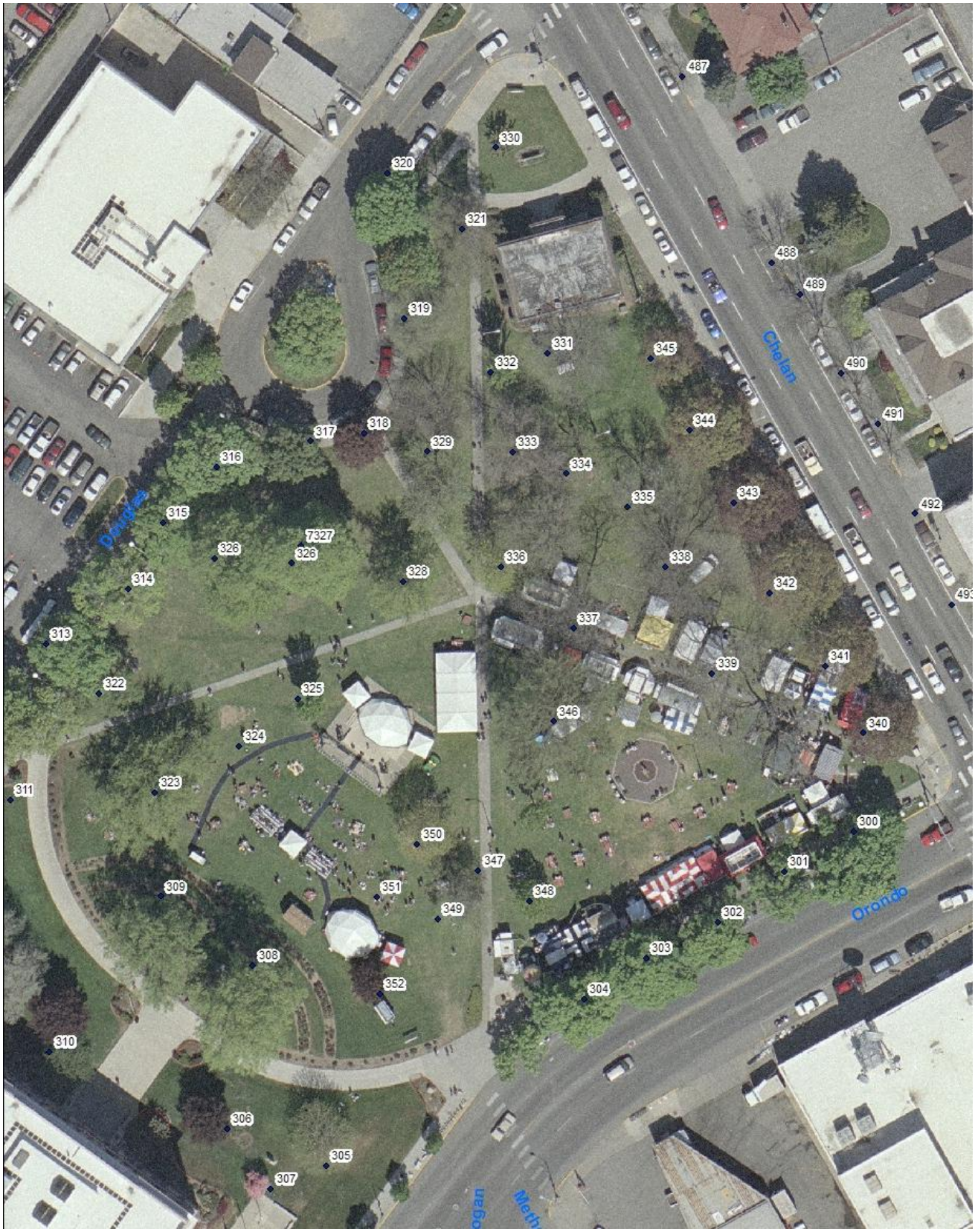
MEMORIAL PARK

DESCRIPTION

Memorial Park is the oldest park in the community. It was acquired during the years 1892, 1922 and 1929. The 3.8 acre park contains mature trees, historical displays, a rose garden, a fountain and picnic tables. The park is the site of several community events throughout the year.

ANALYSIS

- Mature trees dominate age classes present.
- Passive park with greenswards crossed by formal concrete walkways.
- Clearance needed over roadways for Norway maple street trees
- No tree protection measures for construction were observed near west side of the site.
- Good pruning practices observed for many of the mature trees.
- Some sidewalk damage in 2 locations.
- Moderate target area use in interior to frequent target area use near perimeters.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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
300	Memorial	Acer platanoides	Norway maple	27	large	$13,183	No	7		Crown clean	Med- Yr 2-3
301	Memorial	Acer platanoides	Norway maple	18	medium	$4,904	No	6		Clearance prune	Med- Yr 2-3
302	Memorial	Acer platanoides	Norway maple	20	medium	$9,077	No	6		Clearance prune	Med- Yr 2-3
303	Memorial	Acer platanoides	Norway maple	28	large	$16,531	No	6	sidewalk	Clearance prune	Low - Yr 4-5
304	Memorial	Acer platanoides	Norway maple	22	medium	$10,239	No	6	girdle	Clearance prune	Med- Yr 2-3
305	Memorial	Platanus occidentalis	American sycamore	31	large	$19,345	No	6		structural prune	Low - Yr 4-5
306	Memorial	Acer platanoides	Norway maple	16	medium	$6,888	No	5		structural prune	Low - Yr 4-5
307	Memorial	Cornus florida	Florida dogwood	6	small	$741	No	3	memorial placard	Crown clean	High- Yr 1
308	Memorial	Liriodendron tulipifera	Tulip tree	37	large	$30,964	No	6		Crown clean	High- Yr 1
309	Memorial	Liriodendron tulipifera	Tulip tree	39	large	$33,635	No	6	sprinkler	Crown clean	High- Yr 1
310	Memorial	Acer platanoides	Norway maple	18	medium	$7,781	No	6	girdling root	Other	Extreme
311	Memorial	Abies lasiocarpa	Alpine fir	6	small	$668	No	3			
312	Memorial	Acer platanoides	Norway maple	25	large	$14,155	No	6		Crown clean	Med- Yr 2-3
313	Memorial	Acer platanoides	Norway maple	23	medium	$11,176	No	6	sidewalk	Test	High- Yr 1
314	Memorial	Acer platanoides	Norway maple	25	large	$14,155	No	6		Crown clean	Med- Yr 2-3
315	Memorial	Acer platanoides	Norway maple	21	medium	$9,329	No	6		Crown clean	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
316	Memorial	Acer platanoides	Norway maple	23	medium	$11,176	No	6		Crown clean	Med- Yr 2-3
317	Memorial	Acer platanoides	Norway maple	17	medium	$7,020	No	6			
318	Memorial	Acer platanoides	Norway maple	15	medium	$5,490	No	6			
319	Memorial	Acer platanoides	Norway maple	20	medium	$9,682	No	6			
320	Memorial	Acer platanoides	Norway maple	23	medium	$11,975	No	6		Clearance prune	Med- Yr 2-3
321	Memorial	Robinia pseudoacacia	Black locust	39	large	$17,465	No	7		Crown reduction	Med- Yr 2-3
322	Memorial	Crataegus monogyna	Common hawthorn	16.5	medium	$3,887	No	4	11 15 DSH		
323	Memorial	Gingko biloba	Gingko	40	large	$52,386	No	6			
324	Memorial	Tilia cordata	Linden	6	small	$1,064	No	5		structural prune	Low - Yr 4-5
325	Memorial	Acer sacharinum	Sugar maple	13	medium	$3,069	No	4	Nutrient analysis	Monitor	Low - Yr 4-5
326	Memorial	Tilia cordata	Linden	33	large	$27,314	No	6		Remove turf	Low - Yr 4-5
326	Memorial	Tilia cordata	Linden	40	large	$35,059	No	6		Remove turf	Low - Yr 4-5
327	Memorial	Tilia cordata	Linden	30	large	$24,644	No	5			
328	Memorial	Gingko biloba	Gingko	25	large	$19,048	No	6		Remove turf	Low - Yr 4-5
329	Memorial	Liquidambar styraciflua	Sweet gum	3	small	$480	No	3	crown	Remove turf	High- Yr 1
330	Memorial	Prunus spp.	Cherry	10	small	$2,067	No	3	Cherry Bark Tortrix	Monitor	Med- Yr 2-3
331	Memorial	Gleditsia triacanthos	Honey locust	26	large	$14,696	No	7		Remove turf	Low - Yr 4-5
332	Memorial	Acer sacharinum	Sugar maple	12	small	$2,623	No	4		Remove turf	Low - Yr 4-5
333	Memorial	Fraxinus latifolia	Oregon ash	22	medium	$8,571	No	6		Remove turf	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
334	Memorial	Robinia pseudoacacia	Black locust	29	large	$11,206	No	6		Remove turf	Low - Yr 4-5
335	Memorial	Fraxinus latifolia	Oregon ash	22	medium	$9,184	No	6		Crown clean	Low - Yr 4-5
336	Memorial	Quercus macrocarpa	Burr oak	15	medium	$6,431	No	5		Clearance prune	Med- Yr 2-3
337	Memorial	Gleditsia triacanthos	Honey locust	30	large	$21,024	No	6		Crown clean	Low - Yr 4-5
338	Memorial	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	High- Yr 1
339	Memorial	Gleditsia triacanthos	Honey locust	28	large	$19,630	No	7		Crown clean	High- Yr 1
340	Memorial	Acer platanoides	Norway maple	17	medium	$7,301	No	5		Remove turf	Low - Yr 4-5
341	Memorial	Acer platanoides	Norway maple	17	medium	$7,301	No	5		Remove turf	Low - Yr 4-5
342	Memorial	Acer platanoides	Norway maple	17	medium	$7,301	No	5		Remove turf	Low - Yr 4-5
343	Memorial	Acer platanoides	Norway maple	17	medium	$7,301	No	5		Remove turf	Low - Yr 4-5
344	Memorial	Acer platanoides	Norway maple	17	medium	$7,301	No	5		Remove turf	Low - Yr 4-5
345	Memorial	Acer platanoides	Norway maple	16	medium	$6,473	No	5		Remove turf	Low - Yr 4-5
346	Memorial	Ulmus americana	American elm	39	large	$27,871	No	6	Dutch Elm Disease	Monitor	High- Yr 1
347	Memorial	Acer sacharinum	Sugar maple	12	small	$2,811	No	4		Remove turf	Low - Yr 4-5
348	Memorial	Acer sacharinum	Sugar maple	10	small	$1,975	No	4		structural prune	Low - Yr 4-5
349	Memorial	Liquidambar styraciflua	Sweet gum	22	medium	$12,151	No	6		Remove turf	Low - Yr 4-5
350	Memorial	Quercus rubra	Red oak	15	medium	$6,029	No	4	Monitor for boring insects	Monitor	High- Yr 1
351	Memorial	Cornus florida	Florida dogwood	2	small	$480	No	4		Remove turf	Low - Yr 4-5
352	Memorial	Acer platanoides	Norway maple	11	small	$2,713	No	4		Remove turf	Low - Yr 4-5

METHOW PARK

DESCRIPTION

Methow Park is a 1.26 acre neighborhood park that features a seasonal wading pool, picnic shelter, children's play equipment, basketball court and mature shade trees.

ANALYSIS

- Maple in southeast corner has significant issues
- Infrequent target area use in park interior, Moderate target area use along perimeter.


Methow
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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
626	Methow	Acer platanoides	Norway maple	27	large	$19,218	No	6		Mulch	Low - Yr 4-5
627	Methow	Acer platanoides	Norway maple	21	medium	$10,928	No	6		Mulch	Low - Yr 4-5
628	Methow	Acer platanoides	Norway maple	28	large	$18,074	No	6		Mulch	Low - Yr 4-5
629	Methow	Acer platanoides	Norway maple	26	large	$17,846	No	6		Mulch	Low - Yr 4-5
630	Methow	Tilia cordata	Linden	49	large	$54,393	No	6		Mulch	Med- Yr 2-3
631	Methow	Acer platanoides	Norway maple	22	medium	$11,994	No	6		Mulch	Med- Yr 2-3
632	Methow	Acer platanoides	Norway maple	29	large	$19,391	No	6		Mulch	Med- Yr 2-3
633	Methow	Acer platanoides	Norway maple	17	medium	$6,084	No	6		Mulch	Med- Yr 2-3
634	Methow	Betula papyrifera	Paper birch	18	medium	$6,335	No	6		Mulch	Med- Yr 2-3
635	Methow	Prunus x cistena	Cistena plum tree	3	small	$480	No	3		Mulch	Med- Yr 2-3

PENNSYLVANIA PARK

DESCRIPTION

Pennsylvania Park was acquired in 1924. It is a 1.02 acre park that features mature shade trees, multi-use field, seasonal wading pool and children's play equipment.

ANALYSIS

- Trees in the south section of the park have a moderate density of small dead wood throughout canopies.
- Street trees have heading cuts with moderate diameter new growth that should be pruned to select strong branches to retain.
- *Phytophthera* canker viewed on a Norway maple street tree along the west side of the site.
- Infrequent target area use in park interior, Moderate target area use along perimeter.


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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
636	Pennsylvania	Acer platanoides	Norway maple	19	medium	$7,846	No	5	sprouts	structural prune	Med- Yr 2-3
637	Pennsylvania	Acer platanoides	Norway maple	22	medium	$10,649	No	5			
638	Pennsylvania	Acer platanoides	Norway maple	26	large	$14,853	No	5	sprouts	structural prune	Low - Yr 4-5
639	Pennsylvania	Acer platanoides	Norway maple	22	medium	$9,888	No	5	sprouts	structural prune	Low - Yr 4-5
640	Pennsylvania	Fraxinus pennsylvanica	Green ash	24	large	$12,672	No	5		Crown clean	Low - Yr 4-5
641	Pennsylvania	Fraxinus pennsylvanica	Green ash	21	medium	$8,956	No	5		Crown clean	Low - Yr 4-5
642	Pennsylvania	Fraxinus pennsylvanica	Green ash	24	large	$12,672	No	5		Crown clean	Low - Yr 4-5
643	Pennsylvania	Fraxinus pennsylvanica	Green ash	20	medium	$8,716	No	5		Crown clean	Low - Yr 4-5
644	Pennsylvania	Fraxinus pennsylvanica	Green ash	13	medium	$3,741	No	5		Other	Low - Yr 4-5
645	Pennsylvania	Fraxinus pennsylvanica	Green ash	38	large	$32,477	No	5			
646	Pennsylvania	Acer platanoides	Norway maple	18	medium	$7,650	No	5			
647	Pennsylvania	Ulmus americana	American elm	22	medium	$9,066	No	5		Crown clean	Low - Yr 4-5
648	Pennsylvania	Fraxinus pennsylvanica	Green ash	10	small	$2,258	No	5	Memorial tree		
649	Pennsylvania	Acer platanoides	Norway maple	24	large	$13,557	No	5		structural prune	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
650	Pennsylvania	Acer platanoides	Norway maple	21	medium	$9,702	No	5		structural prune	Low - Yr 4-5
651	Pennsylvania	Acer platanoides	Norway maple	28	large	$18,420	No	5		structural prune	Low - Yr 4-5
652	Pennsylvania	Acer platanoides	Norway maple	28	large	$17,192	No	5		structural prune	Low - Yr 4-5
653	Pennsylvania	Acer platanoides	Norway maple	28	large	$17,192	No	5		structural prune	Low - Yr 4-5
654	Pennsylvania	Acer platanoides	Norway maple	13	medium	$2,521	Yes	5	canker, borers, prevent spread		
655	Pennsylvania	Acer platanoides	Norway maple	21	medium	$9,702	No	5		structural prune	Low

PIONEER PARK

DESCRIPTION

Pioneer Park is a seven acre park that was acquired between 1908 and 1919. It features the skate court, picnic area, children's play equipment, wading pool, swimming pool, mature trees and open grassy areas.

ANALYSIS

As a general goal, hazard trees with high target potential should be pruned, removed and replaced to ensure continued forest cover.


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Fuller
Russell

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6257	Pioneer	Cercis canadensis	Common redbud	7	small	$1,314	No	4	Armillaria-loose in ground		
6258	Pioneer	Prunus cerasifera	Plum tree	7	small	$1,186	No	4	Lean, buried	structural prune	Med- Yr 2-3
6259	Pioneer	Cercis canadensis	Common redbud	7	small	$1,314	No	4	Armillaria - Loose in ground		
6260	Pioneer	Prunus cerasifera	Plum tree	8	small	$1,519	No	4			
6261	Pioneer	Cercis canadensis	Common redbud	6	small	$989	No	4	Multi-stem 6",4"	structural prune	Med- Yr 2-3
6262	Pioneer	Acer platanoides	Norway maple	28	large	$20,074	No	6	Severe compaction, struggling	Crown reduction	Med- Yr 2-3
6263	Pioneer	Acer platanoides	Norway maple	3	small	$480	No	4	vandalism	structural prune	Med- Yr 2-3
6264	Pioneer	Acer platanoides	Norway maple	8	small	$1,818	No	4	Basal damage, buried	Air Spade	Med- Yr 2-3
6265	Pioneer	Acer platanoides	Norway maple	13	medium	$4,990	No	4	buried, girdled root	Air Spade	Med- Yr 2-3
6266	Pioneer	Acer platanoides	Norway maple	3	small	$480	No	4	damaged, buried	Air Spade	Med- Yr 2-3
6267	Pioneer	Ulmus americana	American elm	30	large	$22,184	No	6	co-dominant @ 10'	Crown clean	Med- Yr 2-3
6268	Pioneer	Ulmus americana	American elm	37	large	$31,923	No	6		Crown clean	Low - Yr 4-5
6269	Pioneer	Aesculus hippocastanum	Horse chestnut	34	large	$34,505	No	6		Crown clean	High- Yr 1
6270	Pioneer	Acer platanoides	Norway maple	28	large	$22,750	No	6		Crown clean	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6271	Pioneer	Aesculus hippocastanum	Horse chestnut	29	large	$25,844	No	5	minor basal damage	Crown clean	Med- Yr 2-3
6272	Pioneer	Acer platanoides	Norway maple	25	large	$18,181	No	6	girdled root, decay, 1-sided crown	Test	Med- Yr 2-3
6273	Pioneer	Acer platanoides	Norway maple	25	large	$18,181	No	7	decay, 1-sided crown	structural prune	Med- Yr 2-3
6274	Pioneer	Acer platanoides	Norway maple	32	large	$29,088	No	6	odd basal trunk	Crown clean	Med- Yr 2-3
6275	Pioneer	Carpinus spp.	Common hornbeam	34	large	$30,651	No	7	decay in large scaffold	Crown reduction	High- Yr 1
6276	Pioneer	Picea engelmannii	Engleman spruce	17	medium	$7,515	No	5			
6277	Pioneer	Picea engelmannii	Engleman spruce	22	medium	$12,513	No	5	pitch moth		
6278	Pioneer	Acer sacharinum	Sugar maple	42	large	$32,194	Yes	9	topped--prune or remove	Crown reduction	Med- Yr 2-3
6279	Pioneer	Acer platanoides	Norway maple	35	large	$36,300	No	5			
6280	Pioneer	Catalpa speciosa	Catalpa	35	large	$34,283	No	10	decay at base, specimen, could hit road	Test	High- Yr 1
6281	Pioneer	Ulmus americana	American elm	27	large	$17,002	No	8	old co-dominant failure, could hit road	Crown reduction	High- Yr 1
6282	Pioneer	Ulmus americana	American elm	31	large	$21,925	No	8	target is road	Crown reduction	High- Yr 1
6283	Pioneer	Ulmus americana	American elm	26	large	$14,864	No	8	hat racked	structural prune	High- Yr 1
6284	Pioneer	Acer platanoides	Norway maple	31	large	$24,105	No	6	odd form from pruning		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6285	Pioneer	Ulmus americana	American elm	30	large	$20,952	No	9	topped	Crown reduction	High- Yr 1
6286	Pioneer	Ulmus americana	American elm	35	large	$27,496	No	7		Crown reduction	High- Yr 1
6287	Pioneer	Acer sacharinum	Sugar maple	39	large	$28,891	No	8	remove within 10 years, habitat tree	Crown reduction	High- Yr 1
6288	Pioneer	Acer sacharinum	Sugar maple	28	large	$16,120	No	7	topped- remove within 10 years		
6289	Pioneer	Acer sacharinum	Sugar maple	46	large	$29,064	Yes	11	severe basal and crown decay, habitat tree	Test	Extreme
6290	Pioneer	Fraxinus latifolia	Oregon ash	10	small	$2,153	No	5	poor form with broken top	structural prune	Med- Yr 2-3
6291	Pioneer	Ulmus americana	American elm	45	large	$42,379	No	6	specimen tree, co-dominant	Cable	High- Yr 1
6292	Pioneer	Ulmus americana	American elm	33	large	$26,211	No	6		Crown clean	Med- Yr 2-3
6293	Pioneer	Acer sacharinum	Sugar maple	44	large	$34,301	Yes	8	decay in crown over pkg, remove in 10 yr	Crown reduction	High- Yr 1
6294	Pioneer	Acer sacharinum	Sugar maple	36	large	$27,155	No	8	decay in crown, removal within 20 yrs	Crown reduction	High- Yr 1

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
6295	Pioneer	Gleditsia triacanthos	Honey locust	3	small	$480	No	4	planted too deeply	Other	High- Yr 1
6296	Pioneer	Liquidambar styraciflua	Sweet gum	3	small	$480	No	3	Bad planting- reset	Other	High- Yr 1
6297	Pioneer	Acer sacharinum	Sugar maple	40	large	$30,009	Yes	9	decay over pkg, removal within 10 years	Crown reduction	High- Yr 1
6298	Pioneer	Aesculus hippocastanum	Horse chestnut	35	large	$30,250	No	5	bark disease/canker on South	Crown clean	Med- Yr 2-3
6299	Pioneer	Pseudotsuga menziesii	Douglas fir	19	medium	$9,989	No	5			

RAINBOW PARK

DESCRIPTION
Rainbow Park was acquired in 1999. it is a small grassy area adjacent to Wenatchee Avenue near Maiden Lane. It features young trees.

ANALYSIS

- Turf is present up to the base of all the trees.
- Numerous trees with mechanical damage at base from mower contact.
- Newly planted trees are planted too deep.
- Trees useful for shading sidewalk.
- Trees are appropriately placed away from areas of future conflict, suitable for mature growth development.
- Area ties into adjacent steeply sloped green space area.
- Infrequent target area use.
- Small roadside area not actively used for recreation.


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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7656	Rainbow	Pyrus calleryana	Callery pear	4	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7657	Rainbow	Pyrus calleryana	Callery pear	5	small	$526	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7658	Rainbow	Pyrus calleryana	Callery pear	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7659	Rainbow	Pyrus calleryana	Callery pear	4	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7660	Rainbow	Pyrus calleryana	Callery pear	5	small	$526	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7661	Rainbow	Pyrus calleryana	Callery pear	4	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7662	Rainbow	Pyrus calleryana	Callery pear	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7663	Rainbow	Pyrus calleryana	Callery pear	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7664	Rainbow	Pyrus calleryana	Callery pear	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7665	Rainbow	Pyrus calleryana	Callery pear	5	small	$493	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7666	Rainbow	Pyrus calleryana	Callery pear	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7667	Rainbow	Pyrus calleryana	Callery pear	4	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7668	Rainbow	Pyrus calleryana	Callery pear	4	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3

ROTARY PARK

DESCRIPTION

Rotary Park is an eight acre parcel acquired in 1997. It has been developed through a partnership with the Rotary Club. The park features a disc golf course, picnic shelter, walking trail, children's play equipment and splash pad. The landscaping is newly planted.

ANALYSIS

- Numerous young trees planted too deep, with buried root flares resulting.
- Various levels of damage from minor to extensive, due to the Frisbee Golf course set amongst the trees.
- Infrequent target area use of park interior and Moderate target area use along perimeter.
- Trees present a Low risk potential due to small size and small parts.


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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7669	Rotary	Gingko biloba	Gingko	1	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7670	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7671	Rotary	Sorbus aucuparia	Mountain ash	2	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7672	Rotary	Sorbus aucuparia	Mountain ash	2	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7673	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7674	Rotary	Juglans spp.	Walnut	2	small	$480	No	3	enlarge planting circle	Remove turf	Med- Yr 2-3
7675	Rotary	Prunus cerasifera	Plum tree	4	small	$480	No	3			
7676	Rotary	Gleditsia triacanthos	Honey locust	3	small	$480	No	3			
7677	Rotary	Acer sacharinum	Sugar maple	4	small	$480	No	3			
7678	Rotary	Gleditsia triacanthos	Honey locust	3	small	$480	No	3			
7679	Rotary	Acer sacharinum	Sugar maple	1	small	$480	No	3		Remove turf	High- Yr 1
7680	Rotary	Sorbus aucuparia	Mountain ash	1.5	small	$480	No	3		Remove turf	High- Yr 1
7681	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7682	Rotary	Juglans spp.	Walnut	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7683	Rotary	Pinus strobus	White pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7684	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7685	Rotary	Salix fragilis	Crack willow	2	small	$480	No	3		Monitor	High- Yr 1
7686	Rotary	Juglans spp.	Walnut	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7687	Rotary	Cornus florida	Florida dogwood	1	small	$480	No	3		Remove turf	Med- Yr 2-3
7688	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3			
7689	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3			
7690	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3			
7691	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7692	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7693	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7694	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7695	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7696	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7697	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7698	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7699	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7700	Rotary	Acer rubrum	Red maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7701	Rotary	Fraxinus americana	White ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7702	Rotary	Picea mariana	Black spruce	2	small	$430	No	3	monitor stakes	Remove turf	Med- Yr 2-3
7703	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7704	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7705	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3		Remove turf	Med- Yr 2-3
7706	Rotary	Gleditsia triacanthos	Honey locust	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7707	Rotary	Acer sacharinum	Sugar maple	4	small	$480	No	3		Remove turf	Med- Yr 2-3
7708	Rotary	Salix fragilis	Crack willow	4	small	$480	No	3	dieback present	Monitor	High- Yr 1
7709	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7710	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7711	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7712	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	Yes	3	dead	Removal	High
7713	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7714	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7715	Rotary	Juglans spp.	Walnut	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7716	Rotary	Fraxinus americana	White ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7717	Rotary	Cornus florida	Florida dogwood	1	small	$480	No	3		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7718	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7719	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7720	Rotary	Fraxinus spp.	Ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7721	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7722	Rotary	Picea pungens	Colorado spruce	1	small	$430	No	3		Remove turf	Med- Yr 2-3
7723	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7724	Rotary	Crataegus monogyna	Common hawthorn	1	small	$480	No	3		Remove turf	Med- Yr 2-3
7725	Rotary	Fraxinus spp.	Ash	1	small	$480	No	3		Remove turf	Med- Yr 2-3
7726	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7727	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7728	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7729	Rotary	Juglans spp.	Walnut	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7730	Rotary	Prunus cerasifera	Plum tree	3	small	$480	No	3			
7731	Rotary	Cornus florida	Florida dogwood	1	small	$480	No	3			
7732	Rotary	Prunus cerasifera	Plum tree	1	small	$480	No	3	remove watersprouts	Other	Med- Yr 2-3
7733	Rotary	Betula pendula	European white birch	1	small	$480	No	3	remove watersprouts	Other	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7734	Rotary	Prunus cerasifera	Plum tree	3	small	$480	No	3	remove watersprouts	Other	Med- Yr 2-3
7735	Rotary	Prunus cerasifera	Plum tree	3	small	$480	No	3	remove watersprouts	Other	Med- Yr 2-3
7736	Rotary	Cornus florida	Florida dogwood	2	small	$480	No	3			
7737	Rotary	Cornus florida	Florida dogwood	2	small	$480	No	3			
7738	Rotary	Cornus florida	Florida dogwood	2	small	$480	No	3			
7739	Rotary	Prunus cerasifera	Plum tree	4	small	$480	No	3			
7741	Rotary	Prunus cerasifera	Plum tree	4	small	$480	No	3			
7742	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3			
7743	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3			
7744	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3			
7745	Rotary	Picea pungens	Colorado spruce	3	small	$430	No	3			
7746	Rotary	Dead	Dead	3	small	$480	Yes	3			
7747	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3			
7748	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3			
7749	Rotary	Gleditsia triacanthos	Honey locust	1	small	$480	No	3			
7750	Rotary	Crataegus monogyna	Common hawthorn	3	small	$480	No	3			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7751	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3			
7752	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7753	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7754	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7755	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7756	Rotary	Pinus strobus	White pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7757	Rotary	Cornus florida	Florida dogwood	1	small	$480	No	3			
7758	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3	remove stakes in 2 years	Other	Med- Yr 2-3
7759	Rotary	Acer platanoides	Norway maple	3	small	$480	No	3			
7760	Rotary	Pinus nigra	Austrian black pine	3	small	$430	No	3			
7761	Rotary	Cornus florida	Florida dogwood	1	small	$480	No	3			
7762	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		structural prune	Med- Yr 2-3
7763	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3	monitor stake	structural prune	Med- Yr 2-3
7764	Rotary	Fraxinus spp.	Ash	3	small	$480	No	3			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7765	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7766	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7767	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7768	Rotary	Acer sacharinum	Sugar maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7769	Rotary	Acer rubrum	Red maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7770	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7771	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7772	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7773	Rotary	Sorbus aucuparia	Mountain ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7774	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7775	Rotary	Pinus nigra	Austrian black pine	2	small	$430	No	3		Remove turf	Med- Yr 2-3
7776	Rotary	Prunus cerasifera	Plum tree	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7777	Rotary	Salix fragilis	Crack willow	4	small	$480	No	3		Remove turf	Med- Yr 2-3
7778	Rotary	Prunus cerasifera	Plum tree	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7779	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7780	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7781	Rotary	Acer rubrum	Red maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7782	Rotary	Fraxinus spp.	Ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7783	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7784	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7785	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7786	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7787	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7788	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7789	Rotary	Fraxinus spp.	Ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7790	Rotary	Acer rubrum	Red maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7791	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7792	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7793	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7794	Rotary	Tilia cordata	Linden	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7795	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7796	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7797	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7798	Rotary	Acer rubrum	Red maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7799	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7800	Rotary	Gleditsia triacanthos	Honey locust	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7801	Rotary	Acer rubrum	Red maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7802	Rotary	Crataegus monogyna	Common hawthorn	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7803	Rotary	Fraxinus spp.	Ash	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7804	Rotary	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7805	Rotary	Salix fragilis	Crack willow	2	small	$480	No	3		Remove turf	Med- Yr 2-3

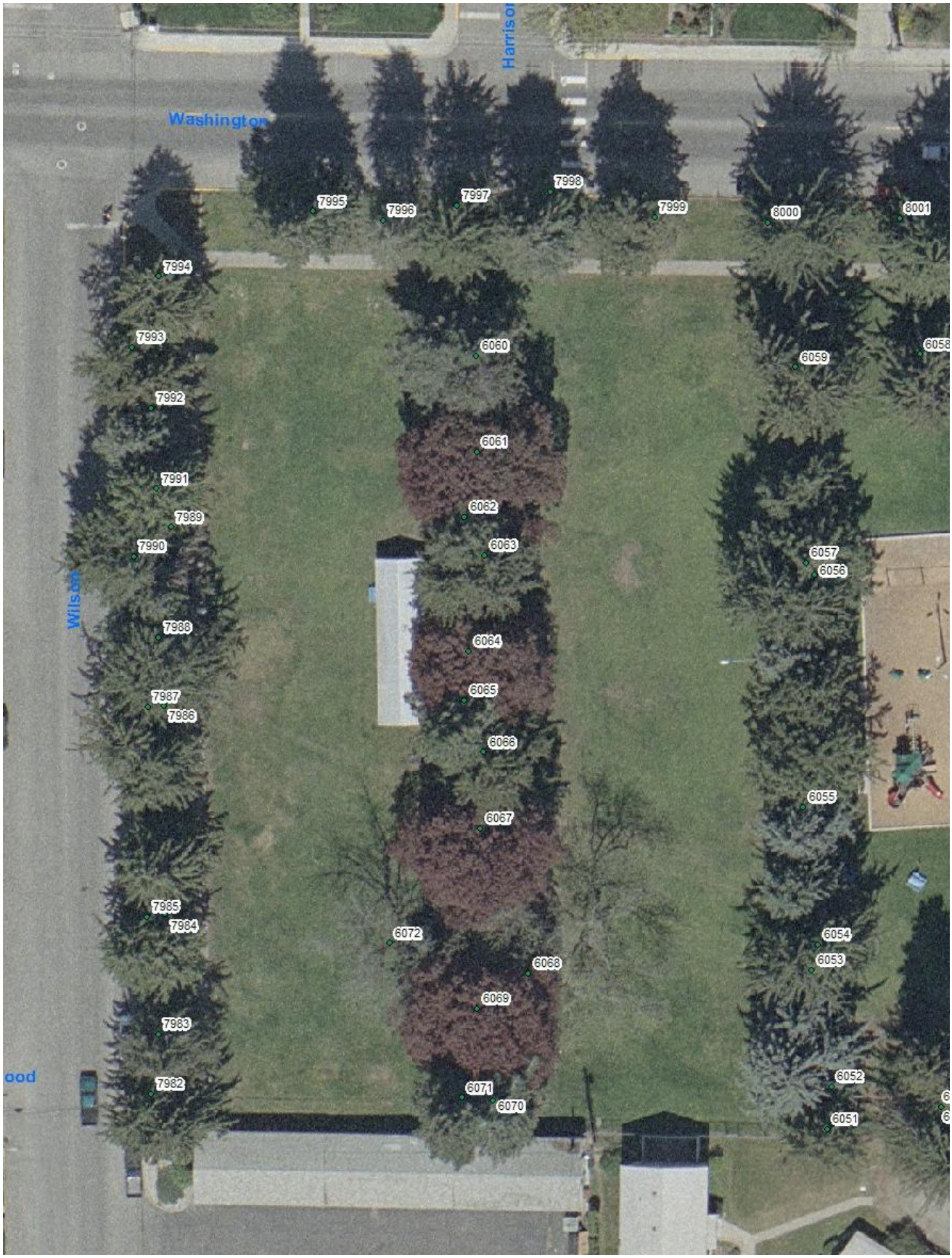
WASHINGTON PARK

DESCRIPTION

Washington Park was acquired in 1946. The 4.12 acre park features a picnic shelter, children's play equipment, seasonal wading pool, open grassy areas and mature trees. Several trees were damaged and lost due a windstorm in 2007.

ANALYSIS

- Numerous conifer trees have been previously topped and now have large regenerative growth parts attached to decaying trunks.
- Infrequent target area use within the park interior, Moderate target area use interior near structures and along perimeters except east, Frequent target area use near east perimeter.
- Many trees with elevated risk potential ratings, eight and higher, due to previous top cuts.
- Trees to east of restroom facility have potential root damage, cause of lean to south.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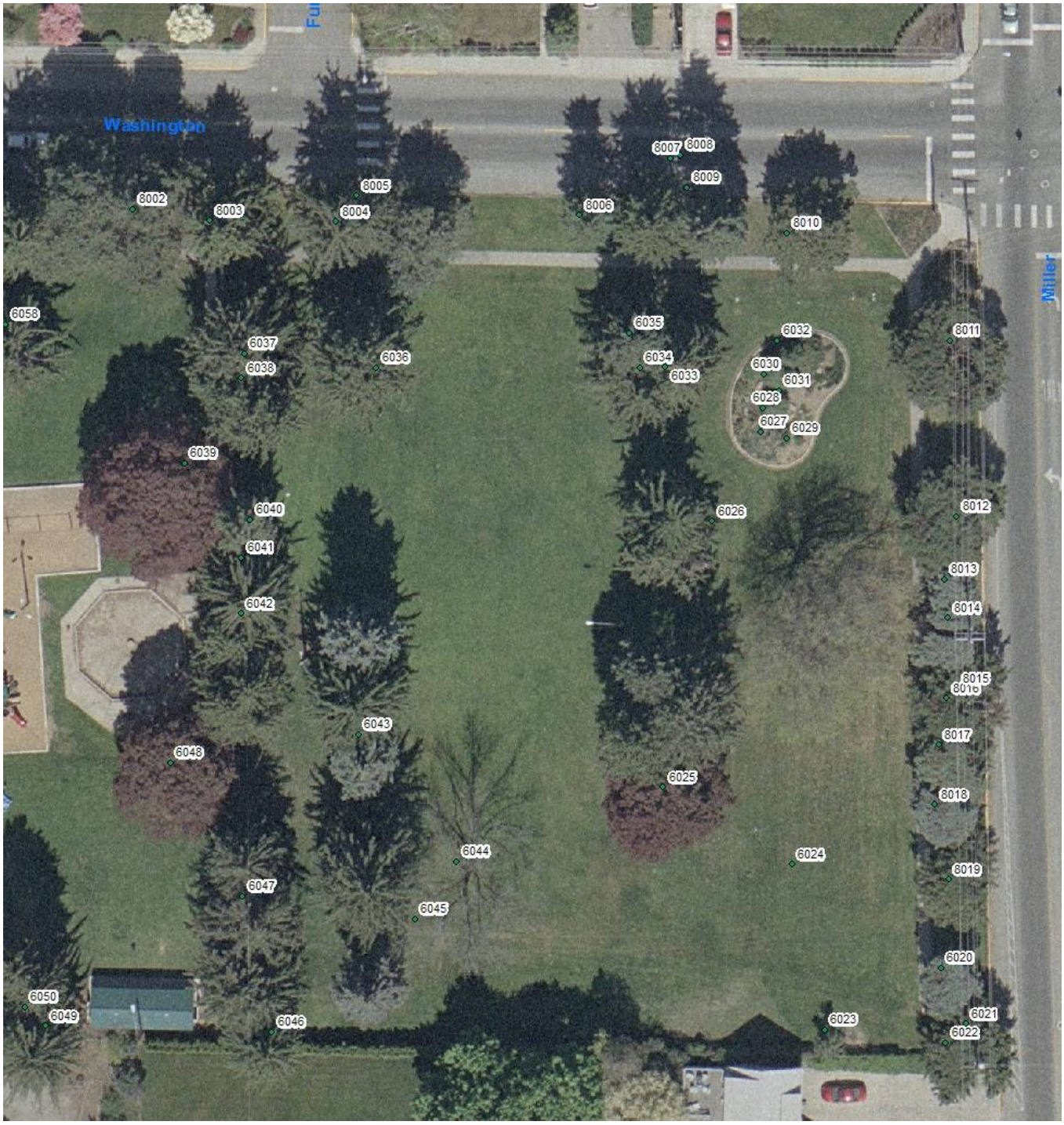
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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7982	Washington	Picea abies	Norway spruce	27	large	$15,654	No	8	topped previously	Test	High- Yr 1
7983	Washington	Picea abies	Norway spruce	23	medium	$7,587	No	0	topped	Monitor	Low - Yr 4-5
7984	Washington	Picea abies	Norway spruce	17	medium	$4,175	No	6	topped	Monitor	Low - Yr 4-5
7985	Washington	Picea abies	Norway spruce	20	medium	$5,077	No	6	Previously topped	Monitor	Low - Yr 4-5
7986	Washington	Picea abies	Norway spruce	19	medium	$4,581	No	6	Previously topped	Monitor	Low - Yr 4-5
7987	Washington	Picea abies	Norway spruce	19	medium	$4,581	No	9	aerial Inspection	Monitor	High- Yr 1
7988	Washington	Picea abies	Norway spruce	27	large	$9,208	No	9	Aerial Inspection	Monitor	High- Yr 1
7989	Washington	Picea abies	Norway spruce	24	large	$5,829	No	9	hollow top, Aerial inspection	Monitor	High- Yr 1
7990	Washington	Picea abies	Norway spruce	22	medium	$4,907	No	9	Topped with decay		
7991	Washington	Picea abies	Norway spruce	24	large	$5,829	No	9	Topped with decay, Aerial inspection	Other	High- Yr 1
7992	Washington	Picea abies	Norway spruce	20	medium	$4,062	No	8	Topped with decay; Aerial inspection	Other	High- Yr 1
7993	Washington	Picea abies	Norway spruce	19	medium	$3,665	No	8	Topped with decay; Aerial inspection	Other	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7994	Washington	Picea abies	Norway spruce	24	large	$5,829	No	9	Topped with decay; Aerial inspection	Other	High- Yr 1
7995	Washington	Pseudotsuga menziesii	Douglas fir	29	large	$20,607	No	5			
7996	Washington	Pseudotsuga menziesii	Douglas fir	24	large	$8,835	No	5	Armillaria present, weak crown	Test	Med- Yr 2-3
7997	Washington	Picea spp.	Spruce	24	large	$13,213	No	5			
7998	Washington	Pseudotsuga menziesii	Douglas fir	25	large	$15,350	No	5			
7999	Washington	Pinus ponderosa	Ponderosa pine	24	large	$15,059	No	5		Crown clean	Low - Yr 4-5
8000	Washington	Picea engelmannii	Engleman spruce	28	large	$17,946	No	5		Crown clean	Low - Yr 4-5
8001	Washington	Picea engelmannii	Engleman spruce	31	large	$22,054	No	5		Crown clean	Low - Yr 4-5
8002	Washington	Pinus ponderosa	Ponderosa pine	37	large	$32,473	No	8	Odd Form	Crown clean	Low - Yr 4-5
8003	Washington	Picea engelmannii	Engleman spruce	24	large	$10,143	No	7	Double Top	Crown clean	Low - Yr 4-5
8004	Washington	Picea engelmannii	Engleman spruce	22	medium	$11,385	No	5		Crown clean	Low - Yr 4-5
8005	Washington	Picea engelmannii	Engleman spruce	22	medium	$11,385	No	5		Crown clean	Low - Yr 4-5
8006	Washington	Pseudotsuga menziesii	Douglas fir	20	medium	$10,075	No	5		Crown clean	Low - Yr 4-5
8007	Washington	Picea engelmannii	Engleman spruce	23	medium	$10,042	No	0			
8008	Washington	Picea engelmannii	Engleman spruce	9	small	$1,495	No	5	Suppressed	Crown clean	Low - Yr 4-5
8009	Washington	Pseudotsuga menziesii	Douglas fir	28	large	$19,659	No	5		Crown clean	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
8010	Washington	Pinus ponderosa	Ponderosa pine	33	large	$28,422	No	0	No top, short	Crown clean	Low - Yr 4-5
8011	Washington	Picea engelmannii	Engleman spruce	27	large	$13,886	No	8	Tree has been topped for power lines	Crown clean	Med- Yr 2-3
8012	Washington	Picea engelmannii	Engleman spruce	24	large	$10,989	No	8	Crown clean, Electrical Wires, Monitor	Monitor	Med- Yr 2-3
8013	Washington	Picea engelmannii	Engleman spruce	16	medium	$4,928	No	0	Electrical Wires	Crown clean	Med- Yr 2-3
8014	Washington	Picea pungens	Colorado spruce	25	large	$12,765	No	8	Electrical Wires	Crown clean	Med- Yr 2-3
8015	Washington	Picea engelmannii	Engleman spruce	14	medium	$3,793	No	8			
8016	Washington	Picea engelmannii	Engleman spruce	18	medium	$6,207	No	8			
8017	Washington	Picea engelmannii	Engleman spruce	19	medium	$6,908	No	8			
8018	Washington	Picea pungens	Colorado spruce	20	medium	$8,186	No	8			
8019	Washington	Picea engelmannii	Engleman spruce	21	medium	$8,429	No	8		Crown clean	Low - Yr 4-5

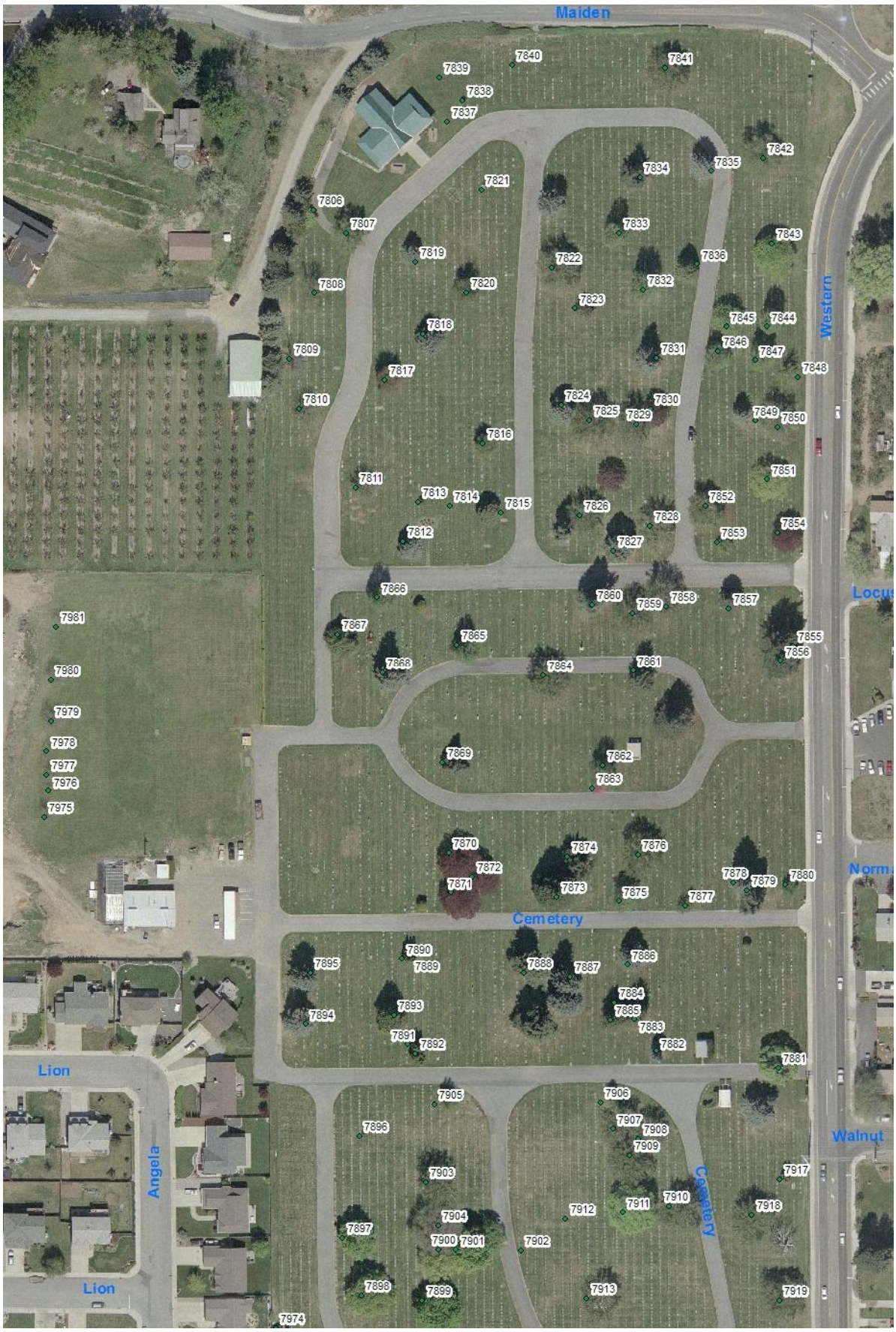
WENATCHEE CEMETERY

DESCRIPTION

The Wenatchee Cemetery and Mausoleum is a 34 acre cemetery with paved roads, crypts, grave sites and mature trees.

ANALYSIS

- Mature trees dominate age class.
- Many trees have shallow root systems with mechanical damage from lawn mower.
- Low limbs create limited overhead clearance for lawn mower to pass below.
- Limited opportunity to mulch around trees due to the head stones.
- Elms with sooty mold
- Young memorial trees with significant issues often due to poor planting and mechanical damage.
- Target-area use is Infrequent around interior trees, Moderate along east perimeter.
- The area in the southwest corner near the residential homes, tree 7956, has excessive amounts of water saturating and eroding soil. Many surface roots exposed from perimeter trees.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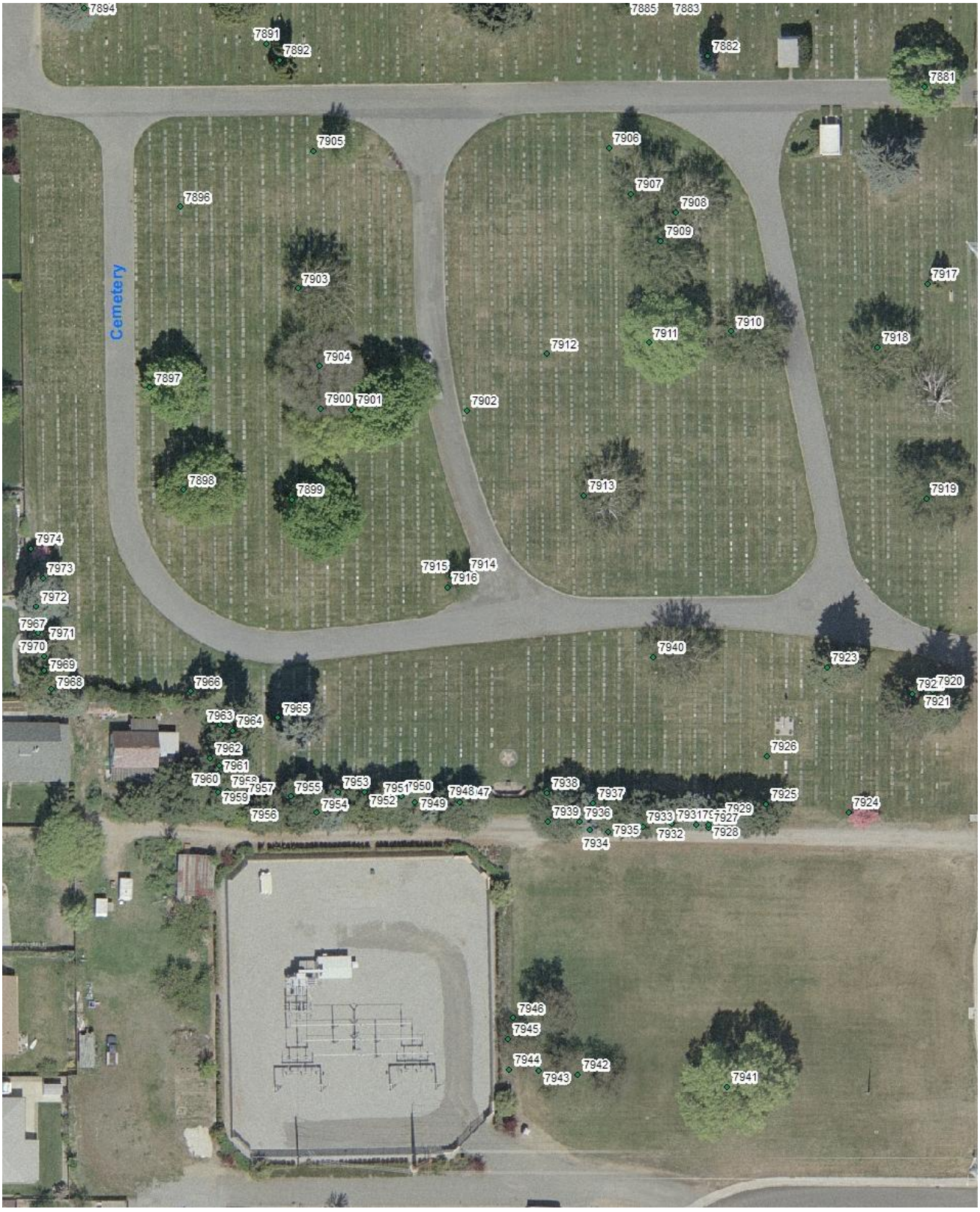
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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7806	Cemetery	Acer palmatum	Japanese maple	10	small	$2,242	No	3	keep vine ouut	Monitor	Med- Yr 2-3
7807	Cemetery	Betula papyrifera	Paper birch	17	medium	$6,279	No	3		Remove turf	Med- Yr 2-3
7808	Cemetery	Fraxinus pennsylvanica	Green ash	22	medium	$12,108	No	3		Remove turf	Med- Yr 2-3
7809	Cemetery	Fraxinus pennsylvanica	Green ash	17	medium	$7,272	No	3		Remove turf	Med- Yr 2-3
7810	Cemetery	Fraxinus pennsylvanica	Green ash	24	large	$14,384	No	3		Remove turf	Med- Yr 2-3
7811	Cemetery	Fraxinus pennsylvanica	Green ash	21	medium	$11,033	No	3		Remove turf	Med- Yr 2-3
7812	Cemetery	Picea pungens	Colorado spruce	27	large	$16,359	No	4		Remove turf	Med- Yr 2-3
7813	Cemetery	Prunus cerasifera	Plum tree	4	small	$480	No	3		Remove turf	Med- Yr 2-3
7814	Cemetery	Laburnum spp.	Laburnum	2	small	$480	No	3	monitor stakes	Remove turf	Med- Yr 2-3
7815	Cemetery	Picea pungens	Colorado spruce	30	large	$21,520	No	4		Remove turf	Med- Yr 2-3
7816	Cemetery	Betula pendula	European white birch	12	small	$2,951	No	3		Remove turf	Med- Yr 2-3
7817	Cemetery	Betula pendula	European white birch	17	medium	$5,421	No	3		Remove turf	Med- Yr 2-3
7818	Cemetery	Picea pungens	Colorado spruce	31	large	$22,522	No	3		Remove turf	Med- Yr 2-3
7819	Cemetery	Picea pungens	Colorado spruce	21	medium	$10,584	No	3		Remove turf	Med- Yr 2-3
7820	Cemetery	Betula pendula	European white birch	19	medium	$7,173	No	3		Remove turf	Med- Yr 2-3
7821	Cemetery	Cornus florida	Florida dogwood	4	small	$480	No	3	consider replacement	Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7822	Cemetery	Betula pendula	European white birch	26	large	$13,332	No	4		Remove turf	Med- Yr 2-3
7823	Cemetery	Calocedrus decurrens	Incense cedar	24	large	$10,501	No	3	Multi Stems 16"8"6"4"4"4"4"2"2"	Remove turf	Med- Yr 2-3
7824	Cemetery	Picea pungens	Colorado spruce	26	large	$16,204	No	3		Remove turf	Med- Yr 2-3
7825	Cemetery	Betula pendula	European white birch	26	large	$13,332	No	3	remove metal plates--dangerous	Remove turf	Med- Yr 2-3
7826	Cemetery	Betula pendula	European white birch	22	medium	$9,582	No	3		Remove turf	Med- Yr 2-3
7827	Cemetery	Picea pungens	Colorado spruce	37	large	$29,060	No	4	monitor junctions	Remove turf	Med- Yr 2-3
7828	Cemetery	Betula pendula	European white birch	25	large	$13,109	No	4		Remove turf	Med- Yr 2-3
7829	Cemetery	Betula pendula	European white birch	21	medium	$9,283	No	4		Remove turf	Med- Yr 2-3
7830	Cemetery	Acer platanoides	Norway maple	20	medium	$11,385	No	4		Remove turf	Med- Yr 2-3
7831	Cemetery	Picea pungens	Colorado spruce	35	large	$17,558	Yes	6		Snag	Med
7832	Cemetery	Ulmus x hollandica	Hybrid elm	29	large	$14,941	No	4		Remove turf	Med- Yr 2-3
7833	Cemetery	Ulmus x hollandica	Hybrid elm	25	large	$11,149	No	4		Remove turf	Med- Yr 2-3
7834	Cemetery	Pseudotsuga menziesii	Douglas fir	24	large	$12,473	No	4		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7835	Cemetery	Picea pungens	Colorado spruce	30	large	$18,149	No	4		Remove turf	Med- Yr 2-3
7836	Cemetery	Calocedrus decurrens	Incense cedar	21	medium	$8,323	No	3	multi stem 19"14"	Remove turf	Med- Yr 2-3
7837	Cemetery	Cornus florida	Florida dogwood	1	small	$480	No	3		Remove turf	Med- Yr 2-3
7838	Cemetery	Acer platanoides	Norway maple	4	small	$480	No	3		Remove turf	Med- Yr 2-3
7839	Cemetery	Pyrus calleryana	Callery pear	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7840	Cemetery	Acer platanoides	Norway maple	3	small	$480	No	3		Remove turf	Med- Yr 2-3
7841	Cemetery	Betula pendula	European white birch	25	large	$11,149	No	4		Remove turf	Med- Yr 2-3
7842	Cemetery	Betula pendula	European white birch	25	large	$11,149	No	4		Remove turf	Med- Yr 2-3
7843	Cemetery	Acer platanoides	Norway maple	24	large	$14,832	No	4		Remove turf	Med- Yr 2-3
7844	Cemetery	Ulmus x hollandica	Hybrid elm	25	large	$10,406	No	4		Remove turf	Med- Yr 2-3
7845	Cemetery	Tilia cordata	Linden	26	large	$16,232	No	4	consider cable	Remove turf	Med- Yr 2-3
7846	Cemetery	Ulmus x hollandica	Hybrid elm	28	large	$13,003	No	5		Remove turf	Med- Yr 2-3
7847	Cemetery	Ulmus x hollandica	Hybrid elm	28	large	$13,932	No	4	monitor vine growing out of junction	Remove turf	Med- Yr 2-3
7848	Cemetery	Gingko biloba	Gingko	15	medium	$7,599	No	3		Remove turf	Med- Yr 2-3
7849	Cemetery	Picea pungens	Colorado spruce	17	medium	$6,717	No	3		Remove turf	Med- Yr 2-3
7850	Cemetery	Betula pendula	European white birch	24	large	$10,274	No	4		Remove turf	Med- Yr 2-3
7851	Cemetery	Liriodendron tulipifera	Tulip tree	24	large	$13,905	No	4		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7852	Cemetery	Betula pendula	European white birch	21	medium	$8,422	No	4		Remove turf	Med- Yr 2-3
7853	Cemetery	Crataegus monogyna	Common hawthorn	14	medium	$3,887	No	4		Remove turf	Med- Yr 2-3
7854	Cemetery	Acer platanoides	Norway maple	20	medium	$9,682	No	4		Remove turf	Med- Yr 2-3
7855	Cemetery	Pseudotsuga menziesii	Douglas fir	38	large	$27,296	No	6		Remove turf	Med- Yr 2-3
7856	Cemetery	Pseudotsuga menziesii	Douglas fir	34	large	$22,658	No	6		Remove turf	Med- Yr 2-3
7857	Cemetery	Picea abies	Norway spruce	26	large	$13,683	No	4		Remove turf	Med- Yr 2-3
7858	Cemetery	Betula pendula	European white birch	24	large	$10,959	No	4		Remove turf	Med- Yr 2-3
7859	Cemetery	Betula pendula	European white birch	23	medium	$8,184	No	4	dieback iin crown	Remove turf	Med- Yr 2-3
7860	Cemetery	Picea pungens	Colorado spruce	40	large	$31,606	No	6	end weight reduction needed	Remove turf	Med- Yr 2-3
7861	Cemetery	Pseudotsuga menziesii	Douglas fir	30	large	$19,446	No	5		Remove turf	Med- Yr 2-3
7862	Cemetery	Ulmus x hollandica	Hybrid elm	23	medium	$9,444	No	4		Remove turf	Med- Yr 2-3
7863	Cemetery	Cornus florida	Florida dogwood	11	small	$2,988	No	4		Remove turf	Med- Yr 2-3
7864	Cemetery	Betula pendula	European white birch	29	large	$15,937	No	4		Remove turf	Med- Yr 2-3
7865	Cemetery	Ulmus x hollandica	Hybrid elm	25	large	$11,149	No	4		Remove turf	Med- Yr 2-3
7866	Cemetery	Ulmus x hollandica	Hybrid elm	28	large	$13,932	No	4		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7867	Cemetery	Thuja plicata	Western red cedar	40	large	$35,942	No	5		Remove turf	Med- Yr 2-3
7868	Cemetery	Picea pungens	Colorado spruce	36	large	$28,589	No	5		Remove turf	Med- Yr 2-3
7869	Cemetery	Picea abies	Norway spruce	29	large	$16,988	No	4		Remove turf	Med- Yr 2-3
7870	Cemetery	Acer platanoides	Norway maple	26	large	$17,411	No	4		Remove turf	Med- Yr 2-3
7871	Cemetery	Acer platanoides	Norway maple	24	large	$14,832	No	4		Remove turf	Med- Yr 2-3
7872	Cemetery	Acer platanoides	Norway maple	21	medium	$10,661	No	4		Remove turf	Med- Yr 2-3
7873	Cemetery	Abies grandis	Grand fir	45	large	$42,132	No	5		Remove turf	Med- Yr 2-3
7874	Cemetery	Picea abies	Norway spruce	35	large	$19,083	No	6	uncorrected lean, root issues	Remove turf	Med- Yr 2-3
7875	Cemetery	Ulmus x hollandica	Hybrid elm	22	medium	$8,081	No	4		Remove turf	Med- Yr 2-3
7876	Cemetery	Betula pendula	European white birch	27	large	$12,967	No	4		Remove turf	Med- Yr 2-3
7877	Cemetery	Crataegus monogyna	Common hawthorn	17	medium	$4,369	No	4		Remove turf	Med- Yr 2-3
7878	Cemetery	Picea pungens	Colorado spruce	34	large	$21,809	No	5	monitor seam	Remove turf	Med- Yr 2-3
7879	Cemetery	Picea pungens	Colorado spruce	44	large	$34,780	No	6		Remove turf	Med- Yr 2-3
7880	Cemetery	Crataegus monogyna	Common hawthorn	14	medium	$3,741	No	4		Remove turf	Med- Yr 2-3
7881	Cemetery	Acer platanoides	Norway maple	30	large	$18,209	No	5		Remove turf	Med- Yr 2-3
7882	Cemetery	Picea pungens	Colorado spruce	30	large	$10,371	No	5		Remove turf	Med- Yr 2-3
7883	Cemetery	Chamaecyparis pisifera	Sawara cypress	27.5	large	$15,280	No	5	multi stem 25"19" monitor seam	Remove turf	Med- Yr 2-3
7884	Cemetery	Calocedrus decurrens	Incense cedar	18	medium	$5,725	No	5		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7885	Cemetery	Chamaecyparis pisifera	Sawara cypress	28	large	$11,298	No	5	monitor major crack	Remove turf	Med- Yr 2-3
7886	Cemetery	Picea pungens	Colorado spruce	24	large	$11,642	No	5		Remove turf	Med- Yr 2-3
7887	Cemetery	Picea pungens	Colorado spruce	35	large	$23,837	No	5		Remove turf	Med- Yr 2-3
7888	Cemetery	Picea abies	Norway spruce	34	large	$21,164	No	5		Remove turf	Med- Yr 2-3
7889	Cemetery	Calocedrus decurrens	Incense cedar	16	medium	$4,548	No	4		Remove turf	Med- Yr 2-3
7890	Cemetery	Calocedrus decurrens	Incense cedar	17	medium	$5,126	No	4		Remove turf	Med- Yr 2-3
7891	Cemetery	Calocedrus decurrens	Incense cedar	18	medium	$5,725	No	4		Remove turf	Med- Yr 2-3
7892	Cemetery	Calocedrus decurrens	Incense cedar	14.5	medium	$3,749	No	4	multi stem 12"11"7"7"	Remove turf	Med- Yr 2-3
7893	Cemetery	Thuja plicata	Western red cedar	52	large	$44,075	No	5	narrow junction	Remove turf	Med- Yr 2-3
7894	Cemetery	Picea pungens	Colorado spruce	33	large	$24,519	No	5		Remove turf	Med- Yr 2-3
7895	Cemetery	Picea pungens	Colorado spruce	31	large	$21,708	No	5		Remove turf	Med- Yr 2-3
7896	Cemetery	Acer rubrum	Red maple	5	small	$658	No	3		Remove turf	Med- Yr 2-3
7897	Cemetery	Acer platanoides	Norway maple	27	large	$14,853	No	4		Remove turf	Med- Yr 2-3
7898	Cemetery	Acer platanoides	Norway maple	29	large	$20,270	No	4		Remove turf	Med- Yr 2-3
7899	Cemetery	Acer platanoides	Norway maple	30	large	$21,677	No	4		Remove turf	Med- Yr 2-3
7900	Cemetery	Acer platanoides	Norway maple	23	medium	$12,773	No	4		Remove turf	Med- Yr 2-3
7901	Cemetery	Acer platanoides	Norway maple	28	large	$15,114	No	4		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7902	Cemetery	Acer platanoides	Norway maple	15	medium	$5,490	No	4		Remove turf	Med- Yr 2-3
7903	Cemetery	Betula pendula	European white birch	21	medium	$7,895	No	4		Remove turf	Med- Yr 2-3
7904	Cemetery	Fraxinus pennsylvanica	Green ash	31	large	$22,607	No	4		Remove turf	Med- Yr 2-3
7905	Cemetery	Gingko biloba	Gingko	20	medium	$13,000	No	4		Remove turf	Med- Yr 2-3
7906	Cemetery	Chamaecyparis pisifera	Sawara cypress	21	medium	$9,564	No	4		Remove turf	Med- Yr 2-3
7907	Cemetery	Betula pendula	European white birch	26	large	$10,440	No	4		Remove turf	Med- Yr 2-3
7908	Cemetery	Betula pendula	European white birch	24	large	$9,589	No	4		Remove turf	Med- Yr 2-3
7909	Cemetery	Betula pendula	European white birch	26	large	$12,047	No	5		Remove turf	Med- Yr 2-3
7910	Cemetery	Betula pendula	European white birch	34	large	$19,923	No	5		Remove turf	Med- Yr 2-3
7911	Cemetery	Liriodendron tulipifera	Tulip tree	38	large	$32,602	No	5		Remove turf	Med- Yr 2-3
7912	Cemetery	Acer sacharinum	Sugar maple	2	small	$480	No	3		Remove turf	Med- Yr 2-3
7913	Cemetery	Betula pendula	European white birch	23	medium	$9,444	No	5	monitor trunk	Remove turf	Med- Yr 2-3
7914	Cemetery	Populus tremuloides	Aspen	10	small	$1,801	No	4		Remove turf	Med- Yr 2-3
7915	Cemetery	Populus tremuloides	Aspen	8	small	$1,232	No	4		Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7916	Cemetery	Populus tremuloides	Aspen	11	small	$2,147	No	4		Remove turf	Med- Yr 2-3
7917	Cemetery	Chamaecyparis pisifera	Sawara cypress	18	medium	$7,038	No	4	multi stem 17"7"7"	Remove turf	Med- Yr 2-3
7918	Cemetery	Betula pendula	European white birch	25	large	$10,406	No	5		Remove turf	Med- Yr 2-3
7919	Cemetery	Betula pendula	European white birch	26	large	$12,047	No	5		Remove turf	Med- Yr 2-3
7920	Cemetery	Picea abies	Norway spruce	29	large	$16,988	No	6		Crown clean	Med- Yr 2-3
7921	Cemetery	Picea abies	Norway spruce	29	large	$16,988	No	6		Crown clean	Med- Yr 2-3
7922	Cemetery	Picea abies	Norway spruce	32	large	$18,892	No	5		Crown clean	Med- Yr 2-3
7923	Cemetery	Picea abies	Norway spruce	41	large	$28,553	No	5		Crown clean	Med- Yr 2-3
7924	Cemetery	Cornus florida	Florida dogwood	11	small	$2,801	No	4		Remove turf	Med
7925	Cemetery	Pinus ponderosa	Ponderosa pine	11	small	$2,764	No	5		Crown clean	Med- Yr 2-3
7926	Cemetery	Pseudotsuga menziesii	Douglas fir	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7927	Cemetery	Picea abies	Norway spruce	11	small	$2,450	No	5		Crown clean	Med- Yr 2-3
7928	Cemetery	Pseudotsuga menziesii	Douglas fir	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7929	Cemetery	Pseudotsuga menziesii	Douglas fir	13	medium	$3,624	No	5		Crown clean	Med- Yr 2-3
7930	Cemetery	Picea pungens	Colorado spruce	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7931	Cemetery	Picea pungens	Colorado spruce	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7932	Cemetery	Picea pungens	Colorado spruce	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7933	Cemetery	Pseudotsuga menziesii	Douglas fir	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7934	Cemetery	Picea pungens	Colorado spruce	8	small	$1,402	No	5		Crown clean	Med- Yr 2-3
7935	Cemetery	Picea abies	Norway spruce	9	small	$1,675	No	5		Crown clean	Med- Yr 2-3
7936	Cemetery	Pseudotsuga menziesii	Douglas fir	13	medium	$3,624	No	5		Crown clean	Med- Yr 2-3
7937	Cemetery	Picea pungens	Colorado spruce	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7938	Cemetery	Pinus ponderosa	Ponderosa pine	11	small	$2,764	No	5		Crown clean	Med- Yr 2-3
7939	Cemetery	Pseudotsuga menziesii	Douglas fir	11	small	$2,607	No	5		Crown clean	Med- Yr 2-3
7940	Cemetery	Betula pendula	European white birch	22	medium	$9,004	No	5		Remove turf	med
7941	Cemetery	Ulmus procera	English elm	44	large	$26,631	No	5		Crown clean	Med- Yr 2-3
7942	Cemetery	Robinia pseudoacacia	Black locust	20	medium	$6,376	No	5		Remove turf	Med
7943	Cemetery	Robinia pseudoacacia	Black locust	30	large	$5,125	Yes	5			
7944	Cemetery	Robinia pseudoacacia	Black locust	13	medium	$2,599	No	5			
7945	Cemetery	Robinia pseudoacacia	Black locust	13	medium	$2,799	No	5			
7946	Cemetery	Robinia pseudoacacia	Black locust	29	large	$12,464	No	5	remove wires	Remove turf	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7947	Cemetery	Pinus ponderosa	Ponderosa pine	29	large	$18,893	No	5			
7948	Cemetery	Picea abies	Norway spruce	24	large	$11,367	No	5			
7949	Cemetery	Picea pungens	Colorado spruce	11	small	$2,607	No	5			
7950	Cemetery	Pseudotsuga menziesii	Douglas fir	22	medium	$10,234	No	5			
7951	Cemetery	Pseudotsuga menziesii	Douglas fir	16	medium	$5,444	No	5			
7952	Cemetery	Picea abies	Norway spruce	15	medium	$4,498	No	5			
7953	Cemetery	Picea abies	Norway spruce	15	medium	$4,498	No	5			
7954	Cemetery	Picea pungens	Colorado spruce	17	medium	$6,140	No	5			
7955	Cemetery	Pinus ponderosa	Ponderosa pine	25	large	$14,069	No	5			
7956	Cemetery	Picea pungens	Colorado spruce	22	medium	$10,234	No	5			
7957	Cemetery	Juglans spp.	Walnut	6	small	$480	Yes	5			
7958	Cemetery	Juglans spp.	Walnut	6	small	$549	No	5			
7959	Cemetery	Picea abies	Norway spruce	14	medium	$3,924	No	5			
7960	Cemetery	Picea abies	Norway spruce	12	small	$2,899	No	5			
7961	Cemetery	Pinus ponderosa	Ponderosa pine	24	large	$11,228	No	5			
7962	Cemetery	Picea abies	Norway spruce	15	medium	$4,498	No	5			
7963	Cemetery	Picea abies	Norway spruce	27	large	$14,365	No	5			
7964	Cemetery	Picea abies	Norway spruce	21	medium	$8,720	No	5			
7965	Cemetery	Picea pungens	Colorado spruce	44	large	$35,232	No	5			
7966	Cemetery	Tsuga heterophyla	Hemlock	24	large	$8,024	No	8	cable immediately or remove	Cable	Extreme

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
7967	Cemetery	Picea pungens	Colorado spruce	30	large	$19,446	No	7			
7968	Cemetery	Chamaecyparis pisifera	Sawara cypress	18	medium	$7,038	No	6			
7969	Cemetery	Picea abies	Norway spruce	21	medium	$8,943	No	6			
7970	Cemetery	Chamaecyparis pisifera	Sawara cypress	17	medium	$6,297	No	6			
7971	Cemetery	Picea abies	Norway spruce	21	medium	$8,943	No	6			
7972	Cemetery	Calocedrus decurrens	Incense cedar	20	medium	$7,562	No	6			
7973	Cemetery	Picea pungens	Colorado spruce	33	large	$22,987	No	6			
7974	Cemetery	Cornus florida	Florida dogwood	5	small	$615	No	6			
7975	Cemetery	Fraxinus pennsylvanica	Green ash	13	medium	$3,627	No	4			
7976	Cemetery	Fraxinus pennsylvanica	Green ash	5	small	$527	No	4			
7977	Cemetery	Fraxinus pennsylvanica	Green ash	8	small	$1,415	No	4			
7978	Cemetery	Fraxinus pennsylvanica	Green ash	6	small	$829	No	4			
7979	Cemetery	Fraxinus pennsylvanica	Green ash	14	medium	$4,187	No	4			
7980	Cemetery	Fraxinus pennsylvanica	Green ash	13	medium	$3,627	No	4			
7981	Cemetery	Fraxinus pennsylvanica	Green ash	9	small	$1,788	No	4			

WENATCHI PARK

DESCRIPTION

Wenatchi Park was acquired in 1993. The ten acre park is located adjacent to Foothills Middle School and the Wenatchee Senior Center. It is used primarily for field sports and open play. There are currently no trees located on the property.

ANALYSIS

- No trees present.

WESTERN HILLS PARK

DESCRIPTION
Western hills Park is a 5 acre park acquired in 1992. It features a multiple use soccer and softball field and children's play equipment.

ANALYSIS

- No trees present.

STREET TREES

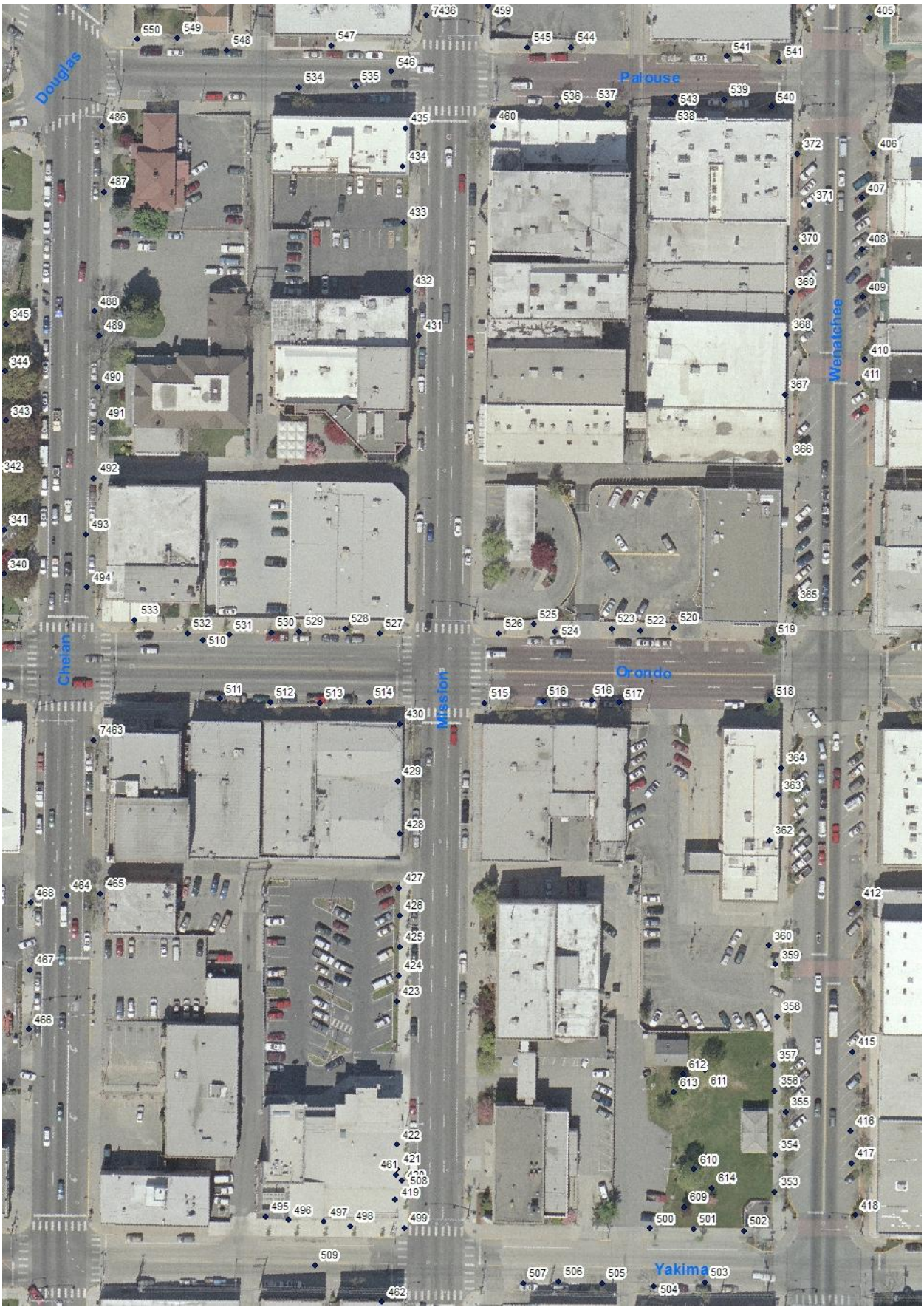
DESCRIPTION

The City of Wenatchee is fortunate to have many tree lined streets in both its' downtown core and residential areas.

ANALYSIS

- Young trees dominate age class.
- Area covered between Orondo (south) to 2nd Street (north) and Wenatchee Street (east) to Chelan Street (west).
- Ash trees are the most abundant species.
- Newly established trees being damaged by cage around the trunks.
- Small planting pits act as growth obstructions; cracks and lifting of sidewalks were noted.
- Small planting pits provide limited area for mitigation.
- Lowest branch for site access/use should be set on the newly planted trees.
- No irrigation measures viewed for new plantings.
- Clearance pruning over roadways needed.
- Frequent target area use along roadways and walkways.
- Many trees have a moderate density of small deadwood throughout the canopies.


2nd
1st
Mission
Chelan
Wenatchee
Palouse


Douglas
Palouse
Wenatchee
Chelan
Mission
Orondo
Yakima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Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
353	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,045	No	6		Crown clean	Low - Yr 4-5
354	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	6	electrical lines	Clearance prune	Low - Yr 4-5
355	Downtown	Fraxinus oxicarpa	Narrowleaf ash	7	small	$821	No	6	elec lights	Crown clean	Low - Yr 4-5
356	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,206	No	6	elec lights	Crown clean	Low - Yr 4-5
357	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,206	No	6	elec lights	Crown clean	Med- Yr 2-3
358	Downtown	Fraxinus oxicarpa	Narrowleaf ash	5	small	$480	No	5	long term removal	Crown clean	Med- Yr 2-3
359	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,206	No	5			
360	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$965	No	5	elect lights	Crown clean	Med- Yr 2-3
361	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	5	elect lights	Crown clean	Low - Yr 4-5
362	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	5	elect lights	Crown clean	Med- Yr 2-3
363	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	5	electrical lines		
364	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,045	No	5	elect lights	Crown clean	Med- Yr 2-3
365	Downtown	Prunus serotina	Black cherry	12	small	$3,173	No	5		Clearance prune	High- Yr 1
366	Downtown	Fraxinus oxicarpa	Narrowleaf ash	7	small	$947	No	5			
367	Downtown	Fraxinus excelsior	European ash	8	small	$1,206	No	5	electrical lines		
368	Downtown	Fraxinus excelsior	European ash	7	small	$821	No	5	electrical lines		
369	Downtown	Fraxinus excelsior	European ash	10	small	$1,690	No	5	elect	Crown clean	Low - Yr 4-5
370	Downtown	Fraxinus excelsior	European ash	9	small	$1,408	No	5	electrical lines		
371	Downtown	Fraxinus excelsior	European ash	9	small	$1,408	No	5	electrical lines		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
372	Downtown	Fraxinus excelsior	European ash	8	small	$1,126	No	5	electrical lines		
373	Downtown	Fraxinus excelsior	European ash	10	small	$1,690	No	5	electrical lines		
374	Downtown	Fraxinus excelsior	European ash	10	small	$1,690	No	5	elect	Crown clean	Low - Yr 4-5
375	Downtown	Fraxinus excelsior	European ash	12	small	$2,396	No	5	elect	Crown clean	Low - Yr 4-5
376	Downtown	Fraxinus excelsior	European ash	10	small	$1,690	No	5	elect	Crown clean	Low - Yr 4-5
377	Downtown	Fraxinus excelsior	European ash	10	small	$1,690	No	5	elect	Crown clean	Low - Yr 4-5
378	Downtown	Fraxinus oxicarpa	Narrowleaf ash	6	small	$585	No	5	electrical lines		
379	Downtown	Fraxinus oxicarpa	Narrowleaf ash	12	small	$2,396	No	5	elect	Crown clean	Low - Yr 4-5
380	Downtown	Fraxinus excelsior	European ash	5	small	$484	No	5	electrical lines		
381	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	3	electrical lines		
382	Downtown	Fraxinus excelsior	European ash	11	small	$2,033	No	5	elect	Crown clean	Low - Yr 4-5
383	Downtown	Fraxinus pennsylvanica	Green ash	5	small	$592	No	5	electrical lines		
384	Downtown	Fraxinus excelsior	European ash	8	small	$1,126	No	5	electrical lines		
385	Downtown	Fraxinus oxicarpa	Narrowleaf ash	4	small	$480	No	5	elect	Crown clean	Low - Yr 4-5
386	Downtown	Fraxinus excelsior	European ash	11	small	$2,178	No	5	elect	Crown clean	Low - Yr 4-5
387	Downtown	Fraxinus excelsior	European ash	13	medium	$2,999	No	5	elect	Crown clean	Low - Yr 4-5
388	Downtown	Fraxinus excelsior	European ash	9	small	$1,307	No	5	elect	Crown clean	Low - Yr 4-5
389	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	5	electrical lines		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
390	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,126	No	5	elect	Crown clean	Low - Yr 4-5
391	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$1,206	No	5	elect	Crown clean	Low - Yr 4-5
392	Downtown	Fraxinus oxicarpa	Narrowleaf ash	8	small	$965	No	5	elect crown	Other	High- Yr 1
393	Downtown	Fraxinus excelsior	European ash	16	medium	$4,467	No	5	cut out	Other	Low - Yr 4-5
394	Downtown	Abies concolor	White fir	4	small	$430	No	5			
395	Downtown	Prunus serotina	Black cherry	10	small	$2,368	No	5			
396	Downtown	Fraxinus oxicarpa	Narrowleaf ash	10	small	$1,811	No	5	electrical lines		
397	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	5	electrical lines		
398	Downtown	Fraxinus excelsior	European ash	10	small	$1,712	No	5	elec	Crown clean	Low - Yr 4-5
399	Downtown	Fraxinus excelsior	European ash	11	small	$2,059	No	5	elec	Crown clean	Low - Yr 4-5
400	Downtown	Fraxinus excelsior	European ash	2	small	$480	No	5	electrical lines		
401	Downtown	Fraxinus excelsior	European ash	10	small	$1,590	No	5	elec	Crown clean	Low - Yr 4-5
402	Downtown	Fraxinus pennsylvanica	Green ash	13	medium	$3,537	No	5	elec	Crown clean	Low - Yr 4-5
403	Downtown	Fraxinus oxicarpa	Narrowleaf ash	7	small	$895	No	5	electrical lines		
404	Downtown	Fraxinus excelsior	European ash	7	small	$895	No	5	elec	Crown clean	Low - Yr 4-5
405	Downtown	Fraxinus excelsior	European ash	14	medium	$3,264	No	5	electrical lines		
406	Downtown	Fraxinus excelsior	European ash	14	medium	$3,497	No	5	electrical lines		

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
407	Downtown	Fraxinus excelsior	European ash	12	small	$2,427	No	5	electrical lines		
408	Downtown	Fraxinus excelsior	European ash	9	small	$1,324	No	5	elec	Crown clean	Med- Yr 2-3
409	Downtown	Fraxinus excelsior	European ash	13	medium	$3,038	No	5	electrical lines, irrigation in roots		
410	Downtown	Fraxinus excelsior	European ash	10	small	$1,834	No	5	electrical lines		
411	Downtown	Fraxinus excelsior	European ash	8	small	$1,059	No	0	elec	Clearance prune	Low - Yr 4-5
412	Downtown	Fraxinus excelsior	European ash	15	medium	$3,734	No	0	electrical lines		
413	Downtown	Fraxinus excelsior	European ash	13	medium	$2,835	No	0	elec	Crown clean	Low - Yr 4-5
414	Downtown	Fraxinus excelsior	European ash	14	medium	$3,264	No	0	elec	Crown clean	Low - Yr 4-5
415	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	3	electrical lines, tag at base		
416	Downtown	Fraxinus excelsior	European ash	13	medium	$2,835	No	5	elecrical lines		
417	Downtown	Fraxinus pennsylvanica	Green ash	11	small	$2,549	No	5	elec	Crown clean	Low - Yr 4-5
418	Downtown	Fraxinus pennsylvanica	Green ash	12	small	$3,017	No	5	elec	Crown clean	Low - Yr 4-5
419	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
420	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
421	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
422	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
423	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
424	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
425	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
426	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
427	Downtown	Pyrus calleryana	Callery pear	3	small	$480	No	3	set low branch	structural prune	Low - Yr 4-5
428	Downtown	Fraxinus excelsior	European ash	14	medium	$3,497	No	4			
429	Downtown	Fraxinus excelsior	European ash	14	medium	$3,031	No	4			
430	Downtown	Fraxinus excelsior	European ash	12	small	$2,253	No	4	sun scald		
431	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	3			
432	Downtown	Fraxinus pennsylvanica	Green ash	12	small	$3,017	No	5	sun	Crown clean	Low - Yr 4-5
433	Downtown	Fraxinus pennsylvanica	Green ash	12	small	$3,017	No	4	sun scald		
434	Downtown	Fraxinus pennsylvanica	Green ash	9	small	$1,619	No	5	sun	Crown clean	Low - Yr 4-5
435	Downtown	Fraxinus excelsior	European ash	9	small	$979	No	4	sun scald		
436	Downtown	Fraxinus excelsior	European ash	8	small	$1,086	No	4			
437	Downtown	Fraxinus excelsior	European ash	16	medium	$4,224	No	5			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
438	Downtown	Fraxinus excelsior	European ash	8	small	$1,140	No	5			
439	Downtown	Fraxinus excelsior	European ash	4	small	$480	Yes	5			
440	Downtown	Fraxinus excelsior	European ash	4	small	$480	No	5			
441	Downtown	Fraxinus excelsior	European ash	8	small	$1,059	No	5			
442	Downtown	Fraxinus excelsior	European ash	12	small	$2,667	No	5		Clearance prune	Med- Yr 2-3
443	Downtown	Fraxinus excelsior	European ash	11	small	$2,059	No	5			
444	Downtown	Fraxinus excelsior	European ash	7	small	$831	No	5			
445	Downtown	Fraxinus excelsior	European ash	12	small	$2,427	No	5	sidewalk lifting-asphalt repa	Other	Low - Yr 4-5
446	Downtown	Fraxinus excelsior	European ash	8	small	$1,045	No	5		Crown clean	Low - Yr 4-5
447	Downtown	Fraxinus excelsior	European ash	7	small	$590	No	5			
448	Downtown	Fraxinus excelsior	European ash	10	small	$1,569	No	5			
449	Downtown	Fraxinus excelsior	European ash	9	small	$1,426	No	5			
450	Downtown	Fraxinus excelsior	European ash	14	medium	$3,587	No	5			
451	Downtown	Fraxinus americana	White ash	18	medium	$8,579	No	5	sidewalk crack & lift	Other	High- Yr 1
452	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	5	slight sidewalk lift	Monitor	Med- Yr 2-3
453	Downtown	Fraxinus excelsior	European ash	11	small	$2,059	No	5			
454	Downtown	Fraxinus excelsior	European ash	11	small	$1,887	No	5		Clearance prune	Low - Yr 4-5
455	Downtown	Fraxinus excelsior	European ash	11	small	$1,912	No	5	sun scald		
456	Downtown	Fraxinus excelsior	European ash	11	small	$1,912	No	5	sidewalk 2" lift, 2 sides	Other	Med- Yr 2-3
457	Downtown	Fraxinus excelsior	European ash	16	medium	$4,641	No	5		Crown clean	Low - Yr 4-5
458	Downtown	Fraxinus excelsior	European ash	10	small	$1,712	No	5			
459	Downtown	Fraxinus excelsior	European ash	14	medium	$3,587	No	5			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
460	Downtown	Fraxinus excelsior	European ash	13	medium	$2,908	No	5	sidewalk cracked		
461	Downtown	Fraxinus excelsior	European ash	10	small	$1,712	No	5	sidewalk cracked		
462	Downtown	Fraxinus pennsylvanica	Green ash	5	small	$618	No	5	sidewalk cracked		
463	Downtown	Fraxinus excelsior	European ash	8	small	$480	No	0			
463	Downtown	Fraxinus excelsior	European ash	11	small	$2,263	No	5	sidewalk		
464	Downtown	Fraxinus excelsior	European ash	12	small	$2,667	No	5	sidewalk		
465	Downtown	Fraxinus excelsior	European ash	11	small	$1,887	No	5	sidewalk	Crown clean	Low - Yr 4-5
466	Downtown	Fraxinus excelsior	European ash	12	small	$2,427	No	5			
467	Downtown	Fraxinus excelsior	European ash	13	medium	$2,835	No	5			
468	Downtown	Fraxinus pennsylvanica	Green ash	2	small	$480	No	5	water bag needed	Other	High- Yr 1
469	Downtown	Fraxinus pennsylvanica	Green ash	11	small	$2,549	No	5	sidewalk tripping hazard	Other	High- Yr 1
470	Downtown	Fraxinus pennsylvanica	Green ash	13	medium	$3,537	No	5			
471	Downtown	Fraxinus oxicarpa	Narrowleaf ash	7	small	$831	No	5		Crown clean	Low - Yr 4-5
472	Downtown	Fraxinus excelsior	European ash	15	medium	$3,734	No	5		Clearance prune	Low - Yr 4-5
473	Downtown	Fraxinus excelsior	European ash	15	medium	$4,103	No	5	sidewalk		
474	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	7		Clearance prune	High- Yr 1
475	Downtown	Tilia cordata	Linden	2	small	small	No	4			
476	Downtown	Tilia cordata	Linden	2	small	small	No	4	set low branch	structural prune	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
477	Downtown	Tilia cordata	Linden	2	small	small	No	4	set low branch	structural prune	Low - Yr 4-5
478	Downtown	Tilia cordata	Linden	3	small	small	No	4			
479	Downtown	Fraxinus excelsior	European ash	10	small	small	No	5		Crown clean	Low - Yr 4-5
480	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5	sidewalk	Crown clean	Low - Yr 4-5
481	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5		Crown clean	Low - Yr 4-5
482	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5	monitor after 5 years	Crown clean	High- Yr 1
483	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5	yr 5	Crown clean	Low - Yr 4-5
484	Downtown	Fraxinus excelsior	European ash	10	small	small	No	5		Crown clean	Low - Yr 4-5
485	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5		Crown clean	Low - Yr 4-5
486	Downtown	Fraxinus excelsior	European ash	16	medium	medium	No	5		Crown clean	Low - Yr 4-5
487	Downtown	Fraxinus excelsior	European ash	11	small	small	No	5			
488	Downtown	Fraxinus excelsior	European ash	18	medium	medium	No	5	sidewalk	Crown clean	Low - Yr 4-5
489	Downtown	Fraxinus excelsior	European ash	27	large	large	No	6	sidewalk	Crown clean	Low - Yr 4-5
490	Downtown	Fraxinus excelsior	European ash	21	medium	medium	No	6	sidewalk	Crown clean	Low - Yr 4-5
491	Downtown	Fraxinus excelsior	European ash	18	medium	medium	No	6	sidewalk	Crown clean	Med- Yr 2-3
492	Downtown	Fraxinus excelsior	European ash	9	small	small	No	5			
493	Downtown	Fraxinus excelsior	European ash	9	small	small	No	5		Clearance prune	Low - Yr 4-5
494	Downtown	Fraxinus excelsior	European ash	11	small	small	No	5			
495	Downtown	Pyrus calleryana	Callery pear	2	small	small	No	3			
496	Downtown	Pyrus calleryana	Callery pear	2	small	small	No	3			
497	Downtown	Pyrus calleryana	Callery pear	2	small	small	No	3			
498	Downtown	Pyrus calleryana	Callery pear	2	small	small	No	3	planted too deep	Other	High- Yr 1
499	Downtown	Pyrus calleryana	Callery pear	2	small	small	No	3	planted too deep	Other	High- Yr 1

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
500	Downtown	Fraxinus pennsylvanica	Green ash	4	small	small	No	4	sidewalk		
501	Downtown	Fraxinus pennsylvanica	Green ash	4	small	small	No	4	sidewalk		
502	Downtown	Fraxinus excelsior	European ash	9	small	small	No	4			
503	Downtown	Fraxinus excelsior	European ash	9	small	small	Yes	4			
504	Downtown	Fraxinus excelsior	European ash	13	medium	medium	No	4		Clearance prune	Med- Yr 2-3
505	Downtown	Fraxinus excelsior	European ash	6	small	small	No	4		Clearance prune	Low - Yr 4-5
506	Downtown	Fraxinus excelsior	European ash	6	small	small	No	4		Crown clean	Low - Yr 4-5
507	Downtown	Fraxinus excelsior	European ash	9	small	small	No	4		Clearance prune	Low - Yr 4-5
508	Downtown	Fraxinus excelsior	European ash	9	small	small	No	4			
509	Downtown	Fraxinus excelsior	European ash	4	small	small	No	4			
510	Downtown	Fraxinus excelsior	European ash	4	small	small	No	4		structural prune	Med- Yr 2-3
511	Downtown	Fraxinus excelsior	European ash	9	small	small	No	4			
512	Downtown	Fraxinus excelsior	European ash	9	small	small	No	4		Crown clean	Med- Yr 2-3
513	Downtown	Fraxinus excelsior	European ash	8	small	small	No	4	puckering leaf	Monitor	High- Yr 1
514	Downtown	Fraxinus excelsior	European ash	8	small	small	No	4	puckering leaf	Monitor	High- Yr 1
515	Downtown	Fraxinus excelsior	European ash	10	small	small	No	4			
516	Downtown	Fraxinus excelsior	European ash	10	small	small	No	4	sidewalk		
516	Downtown	Fraxinus excelsior	European ash	6	small	small	No	4		Monitor	Low
517	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5	sunscld	Monitor	Low
518	Downtown	Prunus spp.	Cherry	8	small	small	No	5			
519	Downtown	Prunus spp.	Cherry	8	small	small	No	5	7+3+6+3 dsh		
520	Downtown	Quercus palustris	Pin oak	1	small	small	No	3		Water	High- Yr 1
522	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
523	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
524	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
525	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
526	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
527	Downtown	Quercus palustris	Pin oak	2	small	small	No	3	tape off	Water	High- Yr 1
528	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
529	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
530	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
531	Downtown	Quercus palustris	Pin oak	2	small	small	No	3		Water	High- Yr 1
532	Downtown	Quercus palustris	Pin oak	3	small	small	No	3		Water	High- Yr 1
533	Downtown	Quercus palustris	Pin oak	3	small	small	No	3		Water	High- Yr 1
534	Downtown	Fraxinus excelsior	European ash	3	small	small	No	5			
535	Downtown	Fraxinus excelsior	European ash	3	small	small	No	5			
536	Downtown	Fraxinus excelsior	European ash	10	small	small	No	5		Crown clean	Low - Yr 4-5
537	Downtown	Fraxinus excelsior	European ash	10	small	small	No	5	premature leaf drop, water?	Monitor	High- Yr 1
538	Downtown	Fraxinus pennsylvanica	Green ash	2	small	small	No	5		Monitor	Low - Yr 4-5
539	Downtown	Fraxinus pennsylvanica	Green ash	7	small	small	No	5			
540	Downtown	Fraxinus pennsylvanica	Green ash	5	small	small	No	4	root issues	Water	High- Yr 1
541	Downtown	Pinus contorta	Shore pine	10	small	small	No	3	in pot		
541	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5		Clearance prune	Low - Yr 4-5
543	Downtown	Fraxinus excelsior	European ash	18	medium	medium	No	5	sidewalk	Clearance prune	High- Yr 1

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
544	Downtown	Fraxinus excelsior	European ash	11	small	small	No	5	sidewalk		
545	Downtown	Fraxinus excelsior	European ash	2	small	small	No	3	remove grate	Water	High- Yr 1
546	Downtown	Fraxinus excelsior	European ash	8	small	small	No	5	remove grate	Other	High- Yr 1
547	Downtown	Fraxinus excelsior	European ash	7	small	small	No	5			
548	Downtown	Fraxinus excelsior	European ash	6	small	small	No	5		Crown clean	Low - Yr 4-5
549	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5			
550	Downtown	Fraxinus pennsylvanica	Green ash	2	small	small	No	3		structural prune	Med- Yr 2-3
551	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5	sidewlk	Crown clean	Med- Yr 2-3
552	Downtown	Fraxinus excelsior	European ash	8	small	small	No	5	sidewlk		
553	Downtown	Fraxinus excelsior	European ash	9	small	small	No	5	sidewlk		
554	Downtown	Fraxinus excelsior	European ash	8	small	small	No	5	sidewlk	Clearance prune	Low - Yr 4-5
555	Downtown	Fraxinus spp.	Ash	3	small	small	No	5			
556	Downtown	Fraxinus excelsior	European ash	3	small	small	No	5			
557	Downtown	Fraxinus excelsior	European ash	9	small	small	No	5		Clearance prune	Med- Yr 2-3
558	Downtown	Fraxinus excelsior	European ash	9	small	small	No	5			
559	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5		Clearance prune	Low - Yr 4-5
560	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5			
561	Downtown	Fraxinus excelsior	European ash	3	small	small	No	5		Water	High- Yr 1
562	Downtown	Fraxinus excelsior	European ash	14	medium	medium	No	5			
563	Downtown	Fraxinus excelsior	European ash	11	small	small	No	5		Crown clean	Med- Yr 2-3
564	Downtown	Fraxinus excelsior	European ash	11	small	small	No	5		Crown clean	Med- Yr 2-3
565	Downtown	Fraxinus excelsior	European ash	21	medium	medium	No	5			
566	Downtown	Fraxinus pennsylvanica	Green ash	2	small	small	No	5	damage from grate	Other	High- Yr 1

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
567	Downtown	Fraxinus pennsylvanica	Green ash	1	small	small	No	3	damage from grate	Remove growth obstruction	High- Yr 1
568	Downtown	Fraxinus pennsylvanica	Green ash	10	small	small	No	5		Clearance prune	Low - Yr 4-5
569	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5		Clearance prune	Low - Yr 4-5
570	Downtown	Fraxinus excelsior	European ash	12	small	small	No	5	sidewalk	Clearance prune	Low - Yr 4-5
571	Downtown	Fraxinus spp.	Ash	8	small	small	No	5			
572	Downtown	Abies concolor	White fir	10	small	small	No	5	xmas reduce water expos cfrwn	Mulch	Med- Yr 2-3
573	Downtown	Acer palmatum	Japanese maple	5	small	small	No	5	xmas reduce water expos cfrwn	Remove ivy	Med- Yr 2-3
574	Downtown	Cornus florida	Florida dogwood	3	small	small	No	4		Remove ivy	Med- Yr 2-3
574	Downtown	Abies species	True fir	3	small	small	No	4	thin maybe	Remove ivy	Med- Yr 2-3
575	Downtown	Acer palmatum	Japanese maple	3	small	small	No	4		Remove ivy	Med- Yr 2-3
576	Downtown	Abies lasiocarpa	Alpine fir	6	small	small	No	4	thin maybe bal wooly	Remove ivy	Med- Yr 2-3
577	Downtown	Abies lasiocarpa	Alpine fir	6	small	small	No	4	thin maybe bal wooly	Remove ivy	Med- Yr 2-3
578	Downtown	Abies lasiocarpa	Alpine fir	6	small	small	No	4	thin maybe bal wooly	Remove ivy	Med- Yr 2-3
579	Downtown	Abies lasiocarpa	Alpine fir	6	small	small	No	4	thin maybe bal wooly	Remove ivy	Med- Yr 2-3

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
580	Downtown	Abies lasiocarpa	Alpine fir	6	small	small	No	4	thin maybe bal wooly	Remove ivy	Med- Yr 2-3
581	Downtown	Acer palmatum	Japanese maple	5	small	small	No	4	topped	Remove ivy	Med- Yr 2-3
582	Downtown	Acer palmatum	Japanese maple	4	small	small	No	4	topped	Remove ivy	Med- Yr 2-3
583	Downtown	Acer palmatum	Japanese maple	4	small	small	No	4	topped	Remove ivy	Med- Yr 2-3
584	Downtown	Acer palmatum	Japanese maple	9	small	small	No	4	topped	Remove ivy	Med- Yr 2-3
585	Downtown	Cornus florida	Florida dogwood	1	small	small	No	4		Remove ivy	High- Yr 1
586	Downtown	Pinus contorta	Shore pine	11	small	small	No	4		Remove ivy	Med- Yr 2-3
587	Downtown	Pinus contorta	Shore pine	11	small	small	No	4	pitch moth all pines	Remove ivy	Med- Yr 2-3
588	Downtown	Pinus species	Pine	12	small	small	No	4	pitch moth all pines	Remove ivy	Med- Yr 2-3
589	Downtown	Pinus species	Pine	12	small	small	No	4	pitch moth all pines	Remove ivy	Med- Yr 2-3
590	Downtown	Pinus species	Pine	12	small	small	No	4	pitch moth all pines	Remove ivy	Med- Yr 2-3
591	Downtown	Acer palmatum	Japanese maple	12	small	small	No	4		Remove ivy	Med- Yr 2-3
592	Downtown	Cornus florida	Florida dogwood	12	small	small	No	4		Remove ivy	Med- Yr 2-3
593	Downtown	Cornus florida	Florida dogwood	4	small	small	No	4		Remove ivy	Med- Yr 2-3
594	Downtown	Cornus florida	Florida dogwood	4	small	small	No	4		Remove ivy	Med- Yr 2-3
595	Downtown	Acer palmatum	Japanese maple	6	small	small	Yes	4	declining tree, poor structure	Other	Med- Yr 2-3
596	Downtown	Acer species	Maple (unspecified)	14	medium	medium	No	5			
597	Downtown	Cornus florida	Florida dogwood	2	small	small	No	3		structural prune	Low - Yr 4-5
598	Downtown	Acer palmatum	Japanese maple	2	small	small	No	3			

Tree ID	Park	Botanical Name	Common Name	DSH	Size Category	Appraised Value	Remove	TRA Rating	NOTES	Maintenance Required	Priority
599	Downtown	Acer palmatum	Japanese maple	4	small	small	No	3			
600	Downtown	Betula jacquemontii	Jacuemontii Birch	4	small	small	No	4	buried root flares	Other	High- Yr 1
601	Downtown	Betula jacquemontii	Jacuemontii Birch	3	small	small	No	4	buried root flares	Other	High- Yr 1
602	Downtown	Betula jacquemontii	Jacuemontii Birch	3	small	small	No	4	buried root flares	Other	High- Yr 1
603	Downtown	Betula jacquemontii	Jacuemontii Birch	5	small	small	No	4	buried root flares	Other	High- Yr 1
604	Downtown	Cornus florida	Florida dogwood	5	small	small	No	4			
605	Downtown	Gleditsia triacanthos	Honey locust	11	small	small	No	4			
606	Downtown	Picea pungens	Colorado spruce	9	small	small	No	4			
606	Downtown	Cedrus atlantica	Atlas cedar	12	small	small	No	4			
607	Downtown	Picea pungens	Colorado spruce	11	small	small	No	4			
608	Downtown	Cornus florida	Florida dogwood	5	small	small	No	3			
608	Downtown	Cornus florida	Florida dogwood	6	small	small	No	4			

TREES

TREE SELECTION

Selecting quality trees to plant will help ensure a successful planting. All plants should meet or exceed American Standards for Nursery Stock ANSI Z60.1. The following general specifications should be observed when selecting trees:

GENERAL APPEARANCE

The tree should have a balanced shape. Balled and burlapped trees are often bought during the dormant season, so they have no leaves. For containered trees, make sure there are no bare spots in the foliage, missing or damaged limbs or discolored or spotted leaves, unless it's the end of the summer season. Most tree species should have a single strong "central leader". Check the size of the crown and rootball in relation to the caliper size of the tree to correspond with the American Standard for Nursery Stock.

CROWN

For most tree species, make sure the branches come off the leader trunk at between a 45 degree and a 90 degree angle. The more the angle the better. Wounds from pruned branches should be callused over or well on their way. Branches should be distributed evenly throughout the tree. This is called good scaffolding. There should not be any cluster of branches. Branches should be about one quarter of the height of the tree. Too long limbs place undue burden on the tree.

TRUNK

The trunk should be straight. Look for insect damage such as bore holes or sawdust. The trunk should be free of discolored, swollen or sunken areas. No wound should be longer than one quarter of the trunks circumference.

BALLED AND BURLAPPED TREES

The trunk should not move independently of the soil. The burlap should be tightly wrapped. The trunk should be in the center of the rootball. Tree roots are pruned and cut before they are wrapped. Avoid trees with cut roots tips wider than an average finger. The more fibrous or hairy roots there are, the better. It is stressful for any tree to be replanted, and more intact roots give the tree a better chance to survive.

CONTAINERIZED TREES

Pot bound roots are in danger of girdling (encircling the inside of the pot). This occurs when the tree has outgrown its container; girdled roots strangle the tree and do not provide an adequate support system when the tree is planted. Avoid tree that have large roots coming out of the water holes or with roots circling on the surface of the soil.

CALIPER SIZE

Caliper size refers to the diameter of the tree's trunk six inches above the ground or the base of a tree where the roots connect. It is an important part of selecting a tree because it will help you ensure that you are getting the proper dimensions for both the height of the tree and size of the rootball. Ideally the larger the rootball the better

TREES

This section contains some basic tree information. It is not intended to be an all inclusive guide to trees that are available in the Wenatchee area. Each section contains the following information:

Common Name

Scientific name

SIZE AND RATE OF GROWTH

The size and average mature size. Rate of growth is divided into three categories, slow – less than a foot of growth per year; moderate – one to two feet of growth per year; Fast – more than two feet of growth per year. Many factors influence size and growth rate. Individual trees will vary.

ORNAMENTAL FEATURES

Aspects of growth if the tree that provide aesthetic interest are listed.

USE

Locations for the establishment of the plant are suggested. The most common usage on public lands, e.g. street trees , lawn specimen and foundation plantings are emphasized.

CULTURE

Factors influencing the successful establishment of the plant are included in this section. Light requirements, soil, urban environment, ease of transplanting and other factors contributing to the plant's growth are included.

DROUGHT TOLERANCE

The irrigation needs of mature plants are the concern of this section as it is recognized that new plants require regular watering. Poor – needs irrigation, Fair – will need irrigation during dry periods, Moderate – may or may not need irrigation depending upon the length of the dry period, Good – will need irrigation if the dry period is extended, Very good – will not need irrigation.

PRUNING

Pruning concerns that are specific to the individual plants are included.

INSECTS AND DISEASES

The most frequent problems that may be encountered are listed.

MAINTENANCE ISSUES

Any additional information that is pertinent to the maintenance of the plant is noted.

NATIVE RANGE

The natural distribution of a plant gives clues to the plants adaptation to the local climate.

Douglas Fir

Pseudotsuga menziesii

SIZE AND RATE OF GROWTH

Can grow to 70 to 200 feet tall, spread usually 1/3 the height; moderate to fast growth.

ORNAMENTAL FEATURES

Symmetrical and dense habit. Old trunks often are divided into thick dark, reddish-brown ridges separated by deep irregular fissures. Needle-like foliage is flat, with white bands beneath. The hanging cones are distinctive with three-pronged projecting bracts at each scale.

USE

Lawn specimen and in a grouping in a large area. Good for wildlife.

CULTURE

Best when grown in fill sun, but will tolerate light shade. Prefers neutral or slightly acidic well-drained soils. Transplants well balled and burlapped.

DROUGHT TOLERANCE

Good.

PRUNING

Seldom needed.

INSECTS AND DISEASES

Canker disease, needle blight, aphids, Douglas fir bark beetle.

MAINTENANCE ISSUES

High winds following heavy rainfall can result in branch breakage or the uprooting of the entire tree.

NATIVE RANGE

Pacific Coast region of the United States and British Columbia.

Grand Fir

Abies grandis

SIZE AND RATE OF GROWTH
Up to 300 feet tall; slow growth.

ORNAMENTAL FEATURES
Handsome, deep green 1-1/12 inch long needles in two rows along branches, glossy above with white lines beneath. Grown for Christmas trees and cuttings. Symmetrical growing habit.

USE
Lawn specimen, good for wildlife.

CULTURE
Plant in full sun or light shade.

DROUGHT TOLERANCE
Moderate.

PRUNING
Shear for Christmas tree look or prune lower branches to garden below.

INSECTS & DISEASES
None Serious.

MAINTENANCE ISSUES
May be too massive for the urban landscape.

NATIVE RANGE
British Columbia to California.

Big Leaf Maple

Acer macrophyllum

SIZE AND RATE OF GROWTH
Up to 90 feet in height with a wide spread; fast growth.

ORNAMENTAL FEATURES
Wide spreading shade tree, often with multiple trunks. Thin bark is broadly ridged and varies from brown gray to brown tinged with red. The leaves are the largest of all maples, from eight to twelve inches in diameter. Fall color ranges from a bright yellow to orange. Small, yellow flowers hang in pendulous clusters four to six inches long and are fragrant. Winged fuzzy seeds also hang in pendulous clusters.

USE
Lawn specimen and other large scale landscapes. Good with wildlife.

CULTURE
Full sun exposure on a rich moist, well-drained site promotes the best growth, but will tolerate a wide range of soil conditions.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune in late summer or when dormant to avoid sap flow from cuts.

INSECTS AND DISEASES
Root rot and tar spot fungus.

MAINTENANCE ISSUES
Dense shade and vigorous surface roots restrict any Plant establishment beneath the tree.

NATIVE RANGE
Southeast Alaska to California

Western Red Cedar

Thuja plicata

SIZE AND RATE OF GROWTH
Can grow to 200 feet in wild, spreading habit; moderate growth.

ORNAMENTAL FEATURES
Neat, symmetrical plants that have scale-like leaves in flat sprays. Foliage is dark green and feathery with small, needlelike leaves and 1/2 diameter cones.

USE
Lawn specimen or in groupings.

CULTURE
Needs shade in hot summer areas, prefers moist soils.

DROUGHT TOLERANCE
Moderate.

PRUNING
Pruning of lower branches will eliminate characteristic beauty of the trees branching pattern.

INSECTS AND DISEASES
Heart rot.

MAINTENANCE ISSUES
Small cones and scales can create litter.

NATIVE RANGE
Alaska to California.

Western Hemlock – Washington State Official Tree

Tsuga heterophylla

SIZE AND RATE OF GROWTH
100 to 200 feet tall in the wild but shorter in cultivation; moderate to fast growth.

ORNAMENTAL FEATURES
This species has a narrow, pyramidal shape. Needles are fairly flat and dark green above. Cones are up to one inch in length and vary from light to reddish brown. The cones are usually produced in large quantities each year.

USE
Lawn specimen and groupings in large scale landscapes.

CULTURE
Tolerates sun or shade. Prefers moist, cool non-windy sites. Difficult to transplant.

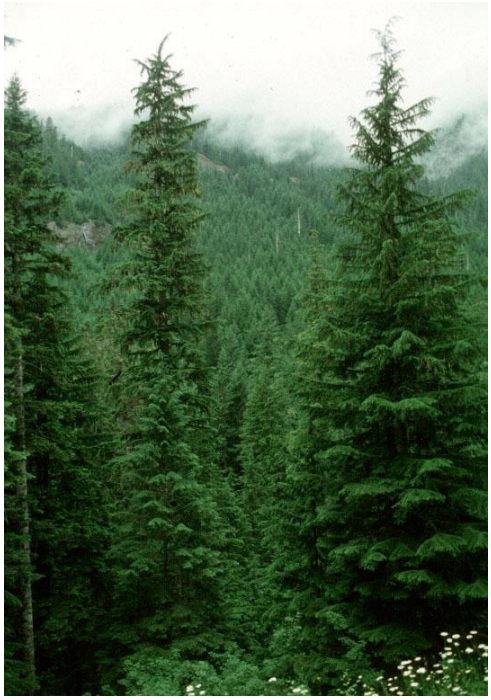
DROUGHT TOLERANCE
Moderate.

PRUNING
High tolerance of heavy shearing. Midsummer is the best time for this to be performed.

INSECTS AND DISEASES
Adelges, spider mites, root rot and stem canker.

MAINTENANCE ISSUES
Because of shallow roots and great size it is susceptible to uprooting. During long periods of hot dry weather, red spider mite infestations can become severe.

NATIVE RANGE
Alaska to California



Cascara

Rhamnus purshiana

SIZE AND RATE OF GROWTH
Small tree will grow from 20 to 40 feet; moderate growth.

ORNAMENTAL FEATURES
Smooth gray or brownish bark has medicinal value. Dark green, prominently veined leaves are elliptical, 1 1/2 to 8 inches long to 2 inches wide usually somewhat tufted at the ends of branches. Foliage turns good yellow in the fall. Round black fruit attracts birds. Picturesque branching pattern.

USE
Lawn specimen or to attract wildlife.

CULTURE
Will grow in dense shade or full sun with ample water. Good for wildlife.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune to maintain branching pattern.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
Fruit may be messy.

NATIVE RANGE
California to British Columbia.

Vine Maple

Acer circinatum

SIZE AND RATE OF GROWTH
25 to 35 feet tall with similar spread, moderate to fast growth.

ORNAMENTAL FEATURES
Large shrub to multi-stemmed tree, vine-like growth under forest conditions. The bark of the tree is smooth in texture and varies in color from green to bright red-brown. Leaves are almost round with seven to nine shallow lobes with pointed tips. Leaves emerge in spring with a red tint, turn green in summer and often exhibit early red fall color in sunny locations. Small reddish purple and with flowers appear in spring and are brighter than the flowers of many maples. Bright red winged seeds follow the flowers.

USE
Lawn specimen, foundation plant and occasionally a street tree. Especially useful in semi-shady areas. Good for wildlife.

CULTURE
Prefers partial shade, especially in urban settings.

DROUGHT TOLERANCE
Poor in full sun, moderate to good in partial shade.

PRUNING
May require pruning to maintain single stemmed habit.

INSECTS AND DISEASES
Root to and stem canker.

MAINTENANCE ISSUES
Can become sprawling. Older multi-stemmed trees may split at the base.

NATIVE RANGE
British Columbia to northern California.

Paper Birch

Betula papyrifera

SIZE AND RATE OF GROWTH
In this cultivation, grows 60 to 80 feet tall with a spread 1/2 to 2/3 the height; in the wild, attains heights up to 100 feet. Moderate to fast growth.

ORNAMENTAL FEATURES
Narrowly pyramidal when young, becoming round topped at maturity. The prized feature of this plant is the white trunk whose outer bark peels off in paper thin strips. Leaves are medium green, often turning to bright yellow in the fall. Flowers are small catkins in spring. Nutlet fruit, which are valued by wildlife, appear in the fall.

USE
Lawn specimen and groupings. Especially effective when planted with dark colored plants such as conifers. Good for wildlife.

CULTURE
Prefers full sun but can tolerate light shade, with well-drained soil.

DROUGHT TOLERANCE
Moderate.

PRUNING
Pruning cuts are slow to heal.

INSECTS AND DISEASES
Aphids and leaf miners.

MAINTENANCE ISSUES
Aphid infestations often produce honeydew, which drips onto anything below the tree. This species is less susceptible to ice breakage than other birches, due to stronger wood.

NATIVE RANGE
Northern North America

Pin Oak

Quercus palustris

SIZE AND RATE OF GROWTH
50 to 80 feet tall with a spread of 35 to 45 feet; moderate fast growth.

ORNAMENTAL FEATURES
Often planted for its branching pattern. The lower branches are pendulous, the middle ones are horizontal and the upper branches grow upright. Foliage is dark green and deeply cut into pointed lobes. Fall color is variable and may be bronze to red. Leaves often persist on the tree through the winter. Fruit is an acorn, 1/2 inch long and light brown.

USE
Lawn specimen in an area with ample room for branching. The pendulous lower branches make this tree inappropriate for street tree use. Good for wildlife.

CULTURE
Prefers full sun. Tolerates wet soils and urban pollution. Suffers chlorosis in alkaline soils. Transplants easily.

DROUGHT TOLERANCE
Moderate.

PRUNING
The lower pendulous branches can be pruned but the middle horizontal branches then will begin to droop. Prune when dormant.

INSECTS AND DISEASES
Occasional scale or gall.

MAINTENANCE ISSUES
The low hanging limbs can obstruct traffic. Planting in alkaline soils will result in chlorosis, which can be treated with iron chelate.

NATIVE RANGE
Eastern United States

Red Oak

Quercus rubra

SIZE AND RATE OF GROWTH
50 to 80 feet tall with a spread of 40 to 50 feet; moderate to fast growth.

ORNAMENTAL FEATURES
Matures to a dome shaped spread, wide spreading, dense form with upcurving branches. High branching habit. As trees mature, the upper limbs show a dark streaking over the gray, as if paint had been spilled at the branch junction. New leaves and leaf stalks are often red when emerging. Leaves are dark green during summer, turning red to brown in fall. Acorn is small about 3/4 to 1 inch.

USE
Lawn specimen or other large scale landscapes.

CULTURE
Grows best in full sun in moist, acidic soils but will tolerate other conditions. Performs well in the urban environment.

DROUGHT TOLERANCE
Moderate.

PRUNING
Rarely needed. If needed prune when dormant.

INSECTS AND DISEASES
Scale.

MAINTENANCE ISSUES
May develop chlorosis in high pH soils.

NATIVE RANGE
Eastern North America

Tulip Tree

Liriodendron tulipifera

SIZE AND RATE OF GROWTH

To 80 feet tall in cultivation with a spread of 30 to 35 feet; in the wild it may reach heights of 150 feet. Fast growth.

ORNAMENTAL FEATURES

Tall, stately tree with a conical form when young, becoming broadly pyramidal with age. Leaves are missing the center point and are indented in a saddle like depression. Medium to yellow green leaf color in the summer, turning yellow in the fall. The flowers are tulip shaped and fragrant. Unfortunately they are not showy. Flowers are a greenish cream color except for an orange band at the base. They are not produced on young trees and are found high in the canopy. Brown fruit in October.

USE

Needs much space. Best in parks.

CULTURE

Best grown in full sun in rich deep moist acidic to neutral soils. Tolerates poorly drained sites. Due to a deep taproot, transplanting is most successful when plant is young.

DROUGHT TOLERANCE

Moderate.

PRUNING

Generally requires little pruning, but a strong central leader is important. Remove upright shoots that arise from major laterals during the dormant season.

INSECTS AND DISEASES

Few serious but aphids and scale can cause problems.

MAINTENANCE ISSUES

Brittle wood may beak in harsh storms. As with other large trees, spreading root system may cause difficulties within close radius of the tree.

NATIVE RANGE

Eastern United States

Bur Oak

Quercus macrocarpa

SIZE AND RATE OF GROWTH
Moderate growth from 60 to 75 feet high and 30 feet wide.

ORNAMENTAL FEATURES
Rugged looking with glossy green leave above and white below. Leaves are 8 to 10 inches long broad at the tip, tapered at the base and deeply lobed. Large acorns form in mossy cups.

USE
Lawn specimen.

CULTURE
Moderately tolerant of adverse conditions. Grows best in deep soils.

DROUGHT TOLERANCE
Good once established.

PRUNING
Prune when dormant if needed.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
Acorns.

NATIVE RANGE
Eastern United States.

Dawn Redwood

Metasequoia glyptostroboides

SIZE AND RATE OF GROWTH
Grows 80 to 90 feet high; very fast when young.

ORNAMENTAL FEATURES
Resembles coast redwood but differs in several ways. Cones are much smaller; leaves are soft to the touch and light; bright green. Brown branchlets turn upward, Foliage turns light bronze in autumn then falls. New growth is attractive in spring.

USE
Best in groves, but also works well as a single specimen.

CULTURE
Grows best in moist but not boggy soil. Stands temperature extremes but can suffer wind damage in cold dry winds. Grows best in soil containing peat with good drainage. Plant in full sun.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune when dormant if needed.

INSECTS AND DISEASES
Resistant to oak root fungus.

MAINTENANCE ISSUES
Needles create litter.

NATIVE RANGE
California.

London Plane Tree

Platanus x acerfolia

SIZE AND RATE OF GROWTH
70 to 80 feet tall with a spread of 60 feet; moderate growth.

ORNAMENTAL FEATURES
Pyramidal habit in youth, maturing to a broad symmetrical outline. Bark peels in large thin plates exposing olive green to creamy white coloration. Leaves resemble maple leaves; medium green in summer turning yellow brown in fall. Flowers are inconspicuous. Brown, ball-like seed cluster hang on long stalks and are persistent in the winter.

USE
Lawn specimen. Often used as a street tree but may be too massive.

CULTURE
Full sun or light shade. Adaptable to a wide range of soil conditions. Performs well under urban conditions. Transplants easily.

DROUGHT TOLERANCE
Good.

PRUNING
Tolerates pruning well and has been used as a hedge in high maintenance situations.
Prune in the winter.

INSECTS AND DISEASES
Anthracnose causes leaf disfigurement and early drop.

MAINTENANCE ISSUES
The foliage disintegrates slowly once on the ground and will require raking. Trees planted close to sidewalks may heave the sidewalks.

NATIVE RANGE
This is a hybrid with parent species from Central North America and Southeastern Europe and Western Asia.

English Oak

Quercus robur

SIZE AND RATE OF GROWTH
60 to 70 feet tall and nearly as wide; moderate to fast growth.

ORNAMENTAL FEATURES
Large round headed outline. Leaves dark green with three to seven pairs of rounded lobes. No fall color leaves either drop green or turn brown and persist. Acorn one to two inches long with the cup covering 1/3 of the nut.

USE
Lawn specimen and other large scale landscapes.

CULTURE
Prefers full sun but can tolerate light shade. Moderately tolerant of the urban environment.

DROUGHT TOLERANCE
Good.

PRUNING
Low branches may need to be removed to raise the crown.

INSECTS AND DISEASES
Highly susceptible to mildew.

MAINTENANCE ISSUES
None serious.

NATIVE RANGE
Europe, northern Africa, western Asia.

Red Maple

Acer rubrum

SIZE AND RATE OF GROWTH
40 to 60 feet tall in cultivation with a 20 foot spread; height may reach 120 feet in the wild; moderate to fast growth.

ORNAMENTAL FEATURES
Upright oval habit develops with age. Red dominates the features of this tree. Twigs have reddish cast. Buds are red, as are the emerging leaves. Fall color is variable from tree to tree, but is generally a rich scarlet color. Flowers on female trees are showy for maples – appearing red in March before the leaves emerge. Winged fruit is often red maturing to brown.

USE
Lawn specimen and street tree.

CULTURE
Prefers full sun but will adapt to partial shade. Tolerates a variety of soil conditions.

DROUGHT TOLERANCE
Poor to moderate.

PRUNING
Corrective pruning needed to remove narrow branch angles.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
May be subject to breakage from heavy snows or ice.

NATIVE RANGE
Eastern and central United States.

Norway Maple

Acer platanoides

SIZE AND RATE OF GROWTH
Normally 50 to 60 feet tall, occasionally to 90 feet with a spread 2/3 or equal to the height; moderate growth.

ORNAMENTAL FEATURES
Large tree with dense, rounded crown. Leaves are four to seven inches wide and are dark green turning to yellow in the fall. Individual flowers are small but form showy clusters. Abundant winged seeds hang on long stalks.

USE
Lawn specimen and street tree.

CULTURE
Prefers full sun or light shade. Tolerant of wide range of soil types and urban conditions.

DROUGHT TOLERANCE
Moderate.

PRUNING
Needs little pruning.

INSECTS AND DISEASES
Aphid infestations, especially in spring and verticillium wilt.

MAINTENANCE ISSUES
This tree has dense surface rooting. Aphid infestations produce honeydew which can drip onto cars and sidewalks.

NATIVE RANGE
Europe, northern Turkey and northern Iran.

Ginkgo Tree

Ginkgo biloba

SIZE AND RATE OF GROWTH

50 to 60 feet tall in cultivation with a variable spread; may grow to 90 feet tall in the wild. Moderate growth.

ORNAMENTAL FEATURES

Open and narrowly conical when young but becomes a broad well proportioned tree with age. Leaf shape is a distinctive fan shape. Foliage color is light green in the spring and summer becoming bright yellow in the fall. Flowers are inconspicuous. The fruit when produced on female trees is a seed with a fleshy covering about one to one and one half inches long.

USE

Lawn specimen and other large scale landscapes.

CULTURE

Adaptable to a wide variety of growing conditions. Prefers full sun and is tolerant of air pollution. Transplants easily.

DROUGHT TOLERANCE

May need watering during dry season until it is 10 to 15 feet tall, then it will become self sufficient.

PRUNING

Needs little pruning.

INSECTS AND DISEASES

None serious.

MAINTENANCE ISSUES

The fleshy covering of the seed on the female tree is extremely messy and foul smelling. Seeds are not produced until the tree is 10 to 15 year s old. To avoid the seeds plant only the male trees.

NATIVE RANGE

Southeast China.

European Hornbeam

Carpinus betulus

SIZE AND RATE OF GROWTH
40 to 60 feet tall with a 38 to 40 foot spread; moderate growth.

ORNAMENTAL FEATURES
Young tree pyramidal becoming rounded at maturity. Oval leaves dark green in summer, often turning yellow in late fall. Leaves may be persistent and dried leaves are often found on trees in the winter. Flowers are borne in clusters, each with a conspicuous three lobed bract. The nut is borne at the base of the flower bract.

USE
Street tree, lawn specimen and pruned as a hedge.

CULTURE
Prefers full sun but can tolerate light shade. Tolerates a wide variety of soil conditions but does best on well drained sites. Tolerates the urban environment. Best if transplanted when young.

DROUGHT TOLERANCE
Moderate.

PRUNING
Withstands heavy pruning and is often clipped into hedges or screens.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
Frequent pruning will be required to maintain hedge.

NATIVE RANGE
Europe to Iran.

Japanese Zelkova

Zelkova serrata

SIZE AND RATE OF GROWTH
50 to 80 feet tall; moderate to fast growth.

ORNAMENTAL FEATURES
This elm tree relative is low branched, with a vase shaped outline and a rounded top. As tree matures, the bark begins to exfoliate. Dark green leaves are oval and slightly rough on top. Fall color varies from red to yellow. Flowers and tiny woody fruit are inconspicuous.

USE
Street tree and lawn specimen.

CULTURE
Full sun. Adaptable to many soil types but exhibits best growth in well drained soils. Reasonable pollution tolerant. Transplants easily.

DROUGHT TOLERANCE
Once the plant is established, it shows good drought tolerance.

PRUNING
Dense crown may be thinned when young.

INSECTS AND DISEASES
Resistant to Dutch elm disease and elm leaf beetle.

MAINTENANCE ISSUES
May be susceptible to damage from late frost when young.

NATIVE RANGE
Japan.

Katsura Tree

ercidiphyllum japonicum

SIZE AND RATE OF GROWTH
Usually to 60 feet in cultivar with variable spread; may reach heights of 100 feet in the wild. Moderate growth.

ORNAMENTAL FEATURES
A multi stemmed or single trunked tree, narrow when young, broadly spreading with age, as space allows. Oppositely arranged leaves are roundish with heart shaped base. The leaves emerge tinged in red, turn blue green during the summer and often achieve a yellow to apricot color in the fall. The leaves often emit a spicy scent as they fall in the autumn. Flowers are small and inconspicuous; fruit on female plants are dry pods with winged seeds.

USE
Single stemmed form adaptable as a street tree. Also a graceful lawn specimen.

CULTURE
Prefers full sun but can tolerate light shade. Prefers moist rich soils. Harder to establish if transplanted as an older tree.

DROUGHT TOLERANCE
Moderate.

PRUNING
May require pruning to establish a single stemmed habit.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
This tree has a tendency to break in ice storms and snowstorms.

NATIVE RANGE
Japan and China.

Red Horsechestnut

Aesculus x carnea

SIZE AND RATE OF GROWTH
Normally grows to about 40 feet in height with a spread of 30 feet, although can grow to 70 feet; moderate growth.

ORNAMENTAL FEATURES
Round headed tree with large dark green palmate leaves divided into five leaflets. Fall leaf color is not significant. In springtime this tree will bear eight inch plumes of pinkish red flowers. The one to two inch round capsuled fruit are slightly prickly.

USE
Lawn specimen.

CULTURE
Best grown in full sun but can adapt to light shade. Adaptable to many soil types. Tolerant of the urban environment.

DROUGHT TOLERANCE
Moderate. Without summer irrigation during dry periods, leaves scorch then drop prematurely.

PRUNING
Interior branches may need to be removed to open canopy of older specimens.

INSECTS AND DISEASES
Susceptible to many problems, including Japanese beetles, mildew and rust diseases.

MAINTENANCE ISSUES
Large leaves, flowers and fruit create litter.

NATIVE RANGE
This is a hybrid with parents from the Balkan Peninsula and the central United States.

Flowering Pear

Pyrus spp.

SIZE AND RATE OF GROWTH
Varies depending upon species. Generally grow to 30 feet.

ORNAMENTAL FEATURES
Planted for attractive flowers in the spring and as smaller shade trees.

USE
Use as lawn specimens in groups or as street trees. Good for wildlife.

CULTURE
Requires well draining, well aerated soil. Plant in full sun.

DROUGHT TOLERANCE
Best with occasional summer water.

PRUNING
Prune as little as possible. Remove crossing branches while tree is in bloom.

INSECTS AND DISEASES
Slugs, caterpillars, root rot, fireblight.

MAINTENANCE ISSUES
May require spraying to eliminate pests. Fruit may be messy.

NATIVE RANGE
Depends upon species.

Hedge Maple

Acer campestre

SIZE AND RATE OF GROWTH
Slow growing to 70 feet in nature, 30 feet in cultivation.

ORNAMENTAL FEATURES
Grows especially dense, compact and rounded. Leaves 2 to 4 inches wide with three to five lobes, dull green color above. Leaves turn yellow in the fall.

USE
Lawn specimen.

CULTURE
Fibrous root system takes water and nutrients from the topsoil. Canopy of leaves needs a constant supply of water.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune when dormant.

INSECTS AND DISEASES
Leaf burn in hot areas.

MAINTENANCE ISSUES
Leaf fall.

NATIVE RANGE
Europe.

American Sweetgum

Liquidambar styraciflua

SIZE AND RATE OF GROWTH
Moderate growth to 60 feet.

ORNAMENTAL FEATURES
Narrow and erect in youth. In winter branching pattern, furrowed bark, corky wings on twigs and hanging fruit give interest, in spring and summer leaves are deep green, in fall leaves turn purple, yellow or red.

USE
Use as specimen tree .

CULTURE
Tolerates damp soil. Plant in full sun with neutral or slightly acid soil.

DROUGHT TOLERANCE
Water 1 to 2 times per month during dry season.

PRUNING
Prune only to shape when dormant.

INSECTS AND DISEASES
Resistant to oak root fungus. Chlorosis in alkaline soils. May break in ice storms.

MAINTENANCE ISSUES
Rake fruit fall in the spring.

NATIVE RANGE
Eastern United States.

Sour Gum

Nyssa sylvatica

SIZE AND RATE OF GROWTH
Grows from 30 to 50 feet with a spread of up to 25 feet. Slow growth.

ORNAMENTAL FEATURES
One of the best trees for fall color. Pyramidas when young spreading and irregular shaped with age. Crooked branches and twigs with dark red tinged bark make dramatic picture against winter sky. Dark green, glossy leaves are 2 to 5 inches long. Leaves appear late in the spring and turn coppery red in the fall before falling. Flowers are inconspicuous. Bluish black fruit shaped like small olives are attractive to birds.

USE
Use as a lawn specimen or in a group.

CULTURE
Plant in full sun. Grows well in any soil and tolerates poor drainage.

DROUGHT TOLERANCE
Good.

PRUNING
Prune when dormant for shape.

INSECTS AND DISEASES
None significant.

MAINTENANCE ISSUES
Fruit may be messy.

Coliseum Maple

Acer cappadocicum

SIZE AND RATE OF GROWTH
Grows to 35 feet tall.

ORNAMENTAL FEATURES
Bright red spring foliage turns rich dark green. Forms compact rounded crown. Leaves with five to seven lobes 5 1/2 inches wide.

USE
Lawn specimen.

CULTURE
Full or part shade.

DROUGHT TOLERANCE
Moderate. Occasional deep waterings during dry season.

PRUNING
Prune when dormant to maintain shape.

INSECTS AND DISEASES
Root rot.

MAINTENANCE ISSUES
Difficult to garden below due to root system.

NATIVE RANGE
Western Asia.

American Yellowwood

Cladrastis lutea

SIZE AND RATE OF GROWTH
Slow growing from 30 to 35 feet tall.

ORNAMENTAL FEATURES
Leaves are divided from 8 to 12 inches wide. Bright green in summer and brilliant yellow in the fall. May not flower until ten years old, when it does, flowers are very fragrant.

USE
Lawn specimen, terrace or patio applications.

CULTURE
Plant in full sun with moderate water.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune when young top shorten side branches. Remove lower branches entirely when tree has reached desired height.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
None major.

NATIVE RANGE
Southeastern united States.

Kobus Magnolia

Magnolia kobus

SIZE AND RATE OF GROWTH
Grows to 30 feet with a 20 foot spread. Slow growth.

ORNAMENTAL FEATURES
Sturdy tree with white 4 inch star shaped flowers. Will flower after 15 years.

USE
As a lawn specimen or as a group.

CULTURE
Hardy tree. Adapts to climate. Plant in full sun or part shade.

DROUGHT TOLERANCE
Moderate; needs deep through waterings during dry periods.

PRUNING
Prune only when absolutely necessary right after bloom

INSECTS AND DISEASES
Scale aphids and spider mites. Salt damage and chlorosis from lack of iron.

MAINTENANCE ISSUES
Avoid soil compaction around root area.

NATIVE RANGE
Southeastern united States.

Cherry Dogwood
Cornus mas

SIZE AND RATE OF GROWTH
20 to 25 feet tall by 15 to 20 feet in width; moderate growth.

ORNAMENTAL FEATURES
Large multi-stemmed shrub or small tree of oval to rounded outline, with exfoliating, flaky bark. Dark green summer foliage turns yellow in the fall. Small yellow flowers appear along the bare branches in March. Bright cherry red fruit appear in July or August. The fruit are eaten by birds and may also be used in preserves.

USE
Lawn specimen, foundation planting and street tree.

CULTURE
Plant in sun to partial shade. Prefers rich, well drained soil. Withstands sub zero temperatures and tolerates alkaline soils. Transplants well when young.

DROUGHT TOLERANCE
Moderate to good.

PRUNING
Often seen as a large shrub but can be trained as a single stemmed tree.

INSECTS AND DISEASES
None serious.

MAINTENANCE ISSUES
Early fall fruit drop my cause a mess on sidewalks or driveways.

NATIVE RANGE
Central and southern Europe, western Asia.

Washington Hawthorne

Crataegus phaenopyrum

SIZE AND RATE OF GROWTH
20 to 30 feet tall with 20 foot spread; moderate growth.

ORNAMENTAL FEATURES
Broadly oval to rounded habit. Two to three inch leaves with three to five pointed lobes, emerge reddish purple, turning to dark green in the summer. Fall color usually in shades of orange to red. White flower clusters appear in June. Bright red fruit emerge in the fall and persist until mid March.

USE
Street tree, lawn specimen and screen.

CULTURE
Prefers full sun in a well drained soil. Tolerates slightly acidic to alkaline soils. Because it develops a taproot, transplanting is most successful when plant is young.

DROUGHT TOLERANCE
Very Good.

PRUNING
Will tolerate shearing for use as a screen; prune when dormant.

INSECTS AND DISEASES
Hawthorns are generally susceptible to many insect and disease problems. This particular species has shown more resistance to rust diseases than other hawthorns.

MAINTENANCE ISSUES
Slim, straight one to three inch thorns make this plant difficult to handle and it should not be used in a high traffic area.

NATIVE RANGE
Eastern and Central United States.

Ornamental Crabapple

Malus spp.

SIZE AND RATE OF GROWTH
Generally less than 30 feet tall; moderate growth.

ORNAMENTAL FEATURES
Commonly small trees with rounded to oval habit though the habit will vary depending on the species, variety and cultivar. Foliage color is predominantly medium green with some plants having significant fall color. Most have beautiful flowers witch bloom in May. Fruit is usually less than two inches with the color ranging from pure red to pure yellow.

USE
Lawn specimen and mass planting.

CULTURE
Full sun best for development of flowers. Generally prefer well drained, moist, acidic soil.

DROUGHT TOLERANCE
Most have moderate drought tolerance.

PRUNING
Best done immediately after flowering since flower buds for the next season are initiated in mid June to early July.

INSECTS AND DISEASES
Scale infestations or borers are the most serious. Some species and cultivars are more resistant to certain problems than others.

MAINTENANCE ISSUES
Spraying and pruning must be performed regularly to ensure good growth.

NATIVE RANGE
Depends upon species, variety and cultivar.

Ironwood

Parrotia persica

SIZE AND RATE OF GROWTH
Slow growing to 30 feet.

ORNAMENTAL FEATURES
Choice and colorful attractive all seasons. Most dramatic display comes in the fall, leaves usually turn form golden yellow to orange and rosy pink then scarlet. Bark is attractive in the winter, smooth gray in color and flaky. Foliage is thick with dark green oval 3 to 4 inch long leaves. Flowers in the spring before leaves open.

USE
Use as lawn specimen or as a group.

CULTURE
Plant in full sun.

DROUGHT TOLERANCE
Moderate, will endure some aridity.

PRUNING
To train as a tree stake and shorten lower branches. Allow upper branches to take their wide spreading habit. When tree reaches desired height, remove lower shortened side branches.

INSECTS AND DISEASES
None significant.

MAINTENANCE ISSUES
None significant.

NATIVE RANGE
Iran.

Paperback Maple

Acer griseum

SIZE AND RATE OF GROWTH
Grows to 25 feet tall or higher depending upon conditions.

ORNAMENTAL FEATURES
Narrow to rounded crown. In winter it makes a striking silhouette with bare branches angling out and up from main trunk and reddish bark peeling away in paper thin sheets. Late to leaf out in spring; leaves are divided into three coarsely toothed leaflets 1 1/2 to 2 1/2 inches long, dark green above and silvery below. Inconspicuous red flowers in spring develop into showy winged seeds. Foliage turns brilliant red in fall.

USE
Lawn specimens or in groups.

CULTURE
Grows best in full sun or partial shade.

DROUGHT TOLERANCE
Provide occasional deep waterings during dry periods.

PRUNING
Prune when dormant.

INSECTS AND DISEASES
None significant.

MAINTENANCE ISSUES
Leaves and seeds create litter.

NATIVE RANGE
China.

Flowering Cherry

Prunus spp.

SIZE AND RATE OF GROWTH
Varies depending upon species. Generally grow to 30 feet.

ORNAMENTAL FEATURES
Planted for attractive flowers in the spring and as smaller shade trees.

USE
Use as lawn specimens in groups or as street trees. Good for wildlife.

CULTURE
Requires well draining, well aerated soil. Plant in full sun.

DROUGHT TOLERANCE
Best with occasional summer water.

PRUNING
Prune as little as possible. Remove crossing branches while tree is in bloom.

INSECTS AND DISEASES
Slugs, caterpillars, root rot.

MAINTENANCE ISSUES
May require spraying to eliminate pests. Fruit may be messy.

NATIVE RANGE
Depends upon species.

American Hornbeam

Carpinus caroliniana

SIZE AND RATE OF GROWTH
Moderate growth from 25 to 35 feet.

ORNAMENTAL FEATURES
Round headed tree. Bark is smooth and gray. Dark green leaves are 1 to 3 inches long with toothed edges. In fall the leaves turn molted yellow and red. It has fruit clusters which are 1 1/2 to 4 inches long.

USE
Lawn specimen, good for wildlife. Can use as street trees, but fruit may be messy.

CULTURE
Plant in full sun.

DROUGHT TOLERANCE
Moderate.

PRUNING
Prune when dormant to maintain shape.

INSECTS AND DISEASES
Hardy.

MAINTENANCE ISSUES
Small hard fruit.

NATIVE RANGE
Central United States.

Flowering Plum

runus spp.

SIZE AND RATE OF GROWTH
Varies depending upon species. Generally grow to 30 feet.

ORNAMENTAL FEATURES
Planted for attractive flowers in the spring and as smaller shade trees. Leaf color varies. Leaves generally oval 1 to 2 inches in size.

USE
Use as lawn specimens in groups or as street trees. Good for wildlife.

CULTURE
Requires well draining, well aerated soil. Plant in full sun.

DROUGHT TOLERANCE
Best with occasional summer water.

PRUNING
Prune as little as possible. Remove crossing branches while tree is in bloom.

INSECTS AND DISEASES
Slugs, caterpillars, root rot.

MAINTENANCE ISSUES
May require spraying to eliminate pests. Fruit may be messy.

NATIVE RANGE
Depends upon species.

PROHIBITED STREET TREES

There are several varieties of trees which are currently prohibited for use as street trees within the City of Wenatchee. Trees on this list typically have poor growth habits, are susceptible to disease, pests or breakage, bear fruit, have invasive roots, prevent visibility, or reach a mature height not appropriate for street situations.

The following is the list of prohibited trees:

1. Box Elder
2. Silver Maple
3. Weeping Willows
4. Fir
5. Cedar
6. Hemlock
7. Spruce
8. Pine
9. Poplar
10. Any nut or fruit bearing tree except ornamentals.

PROGRAMS

TREE CITY USA

Every community, regardless of size, benefits in different ways from being a Tree City USA. Reports of these benefits have reached The National Arbor Day Foundation through the years and are summarized below in six general categories:

Framework for Action
Meeting the four standards for becoming a Tree City USA provides initial direction for an urban or community forestry program. Like the first rungs on a ladder, the standards help get a community started toward annual, systematic management of its tree resources. The four standards are as follows:

A Tree Board or Department
Someone must be legally responsible for the care and management of the community's trees. This may be a professional forester or arborist, an entire forestry department, or a volunteer tree board. Often, both a professional staff and advisory tree board is present, which is a good goal for most communities. A tree board, or commission, is a group of concerned volunteer citizens charged by Ordinance with developing and administering a comprehensive tree management program. Balanced, broad-based community involvement is encouraged. Boards function best if not composed entirely of tree-related professionals such as forestry professors, nursery operators, arborists, etc. Fresh ideas and different perspectives are added by citizens with an interest in trees that is entirely avocational. Limited, staggered terms of service will prevent stagnation or burnout, while at the same time assuring continuity. The City of Wenatchee Parks and Recreation Advisory Board serves as the City Tree Board.

A Tree Care Ordinance
The tree Ordinance must designate the establishment of a tree board or forestry department and give this body the responsibility for writing and implementing an annual community forestry work plan. Beyond that, the Ordinance should be flexible enough to fit the needs and circumstances of the particular community. A tree Ordinance provides an opportunity to set good policy and back it with the force of law when necessary. Ideally, it will provide clear guidance for planting, maintaining and removing trees from streets, parks and other public places. A copy of the City of Wenatchee Tree Ordinance is contained in a previous section of this plan and also online in the Wenatchee Municipal Code.

A Community Forestry Program with An Annual Budget Of At Least $2 Per Capita
Evidence is required that the community has established a community forestry program that is supported by an annual budget of at least $2 per capita. At first, this may seem like an impossible barrier to some communities. However, a little investigation usually reveals that more than this amount is already being spent by the municipality on its trees. If not, this may signal serious neglect that will cost far more in the long run. In such a case, working toward Tree City USA recognition can be used to re-examine the community's budget priorities and re-direct funds to properly care for its tree resource before it is too late. Ideally, this standard will be met by focusing funding on an annual work plan developed after an inventory is completed and a report is approved by the City Council. Such a plan will address species diversity, planting needs, hazardous trees, insect and disease problems and a pattern of regular care such as pruning and watering.

An Arbor Day Observance and Proclamation
This is the least challenging and probably the most enjoyable standard to accomplish. An Arbor Day celebration can be simple and brief or an all-day or all-week observation. It can be a simple tree planting event or an award ceremony that honors leading tree planters. For children, Arbor

Day may be their only exposure to the green world or a springboard to discussions about the complex issue of environmental quality. The benefits of Arbor Day go far beyond the shade and beauty of new trees for the next generation. Arbor Day is a golden opportunity for publicity and to educate homeowners about proper tree care. Utility companies can join in to promote planting small trees beneath power lines or being careful when digging. Smokey Bear's fire prevention messages can be worked into the event, as can conservation education about soil erosion or the need to protect wildlife habitat. Still another way to develop Arbor Day is to link it with a tree-related festival.

Education
Education begins with discussion of the standards and getting organized to apply for Tree City USA status. It continues as the desire for Tree City USA recognition leads to contacts with the state forester's staff. In turn, this can set in motion aid from a variety of professionals in the form of technical advice, literature, films, and other assistance.

Public Image
A community's public image is a very real phenomenon and important in many ways. Being a Tree City USA helps present the kind of image that most citizens want to have for the place they live or conduct business. The Tree City USA signs at community entrances tell visitors that here is a community that cares about its environment. It is also an indication to prospective businesses that the quality of life may be better here. It has even been known to be a factor in where meetings or conferences have been held.

Citizen Pride
Pride is sometimes a less tangible benefit. Gaining and retaining Tree City USA recognition is an award to the tree workers, managers, volunteers, tree board members and others who work on behalf of better care of a community's trees. Non-involved citizens, too, often share a sense of pride that theirs is a Tree City USA. This may translate to better care of trees on private property or a willingness to volunteer in the future.

Financial Assistance
Preference is sometimes given to Tree City USA communities over other communities when allocations of grant money are made for trees or forestry programs. The reason is that there are invariably more requests than available funds when grants are available through state or federal agencies. If requests are equally worthy, some officials tend to have more confidence in communities that have demonstrated the foresight of becoming a Tree City USA.

Publicity
Presentation of the Tree City USA award and the celebration of Arbor Day offer excellent publicity opportunities. This results not only in satisfaction for the individuals involved and their families, but also provides one more way to reach large numbers of people with information about tree care.

ARBOR DAY

Over a century ago, J. Sterling Morton recognized the importance of trees by setting aside a day that celebrated the planting of trees. The first Arbor Day was established in 1872 by the Nebraska Board of Agriculture. Arbor Day and Arbor Month celebrations now take place across the United States as well as in many countries around the world.

An Arbor Day celebration can be a highly visible public event. Many residents become aware of public trees when something negative has happened to the trees, such as inappropriate pruning or sudden removal. An Arbor Day celebration emphasizes a positive effort.

Involving community leaders and local businesses early in the planning stages of an Arbor Day activity can

provide early community support and word of mouth publicity.

Arbor Day activities are often targeted at children. In addition to tapping their natural enthusiasm for living things, these activities give children early exposure to the importance of trees. Tree planting and tree care demonstrations teach children techniques that stay with them throughout their life. Better informed adults make better informed decisions concerning trees.

The list of potential Arbor Day activities is unlimited. Many communities included some type of program to officially recognize Arbor Day. A typical Arbor Day program includes the following:

1. Welcome by a local dignitary or civic leader.
2. A brief Arbor Day history.
3. Reading of the Arbor Day proclamation by the Mayor.
4. Poem, song, or selected reading about trees.
5. Planting of a ceremonial tree.
6. Demonstration of proper watering and care techniques.
7. Closing remarks and refreshments.

In addition to the symbolic planting of a few trees, Arbor Day serves to make everyone tree-conscious throughout the year. Theodore Roosevelt said, "A people without children would face a hopeless future; a country without trees is almost as hopeless."

An excellent source of information and ideas is the National Arbor Day Foundation.

LIVING MEMORIAL TREE PROGRAM

The City of Wenatchee Living Memorial Tree Program was established in 2007 as a way to commemorate a special date such as a birthday or anniversary, honor a person, event or organization and have a tree planted in a local park.

A Living Memorial Tree is not only a gift for today but also a lasting contribution to the beauty and variety of the park landscape. It can help clean the air, control erosion, ease noise pollution and provide a safe haven for wildlife. A tree spreads its strength and beauty over the years, just as families grow and flourish for generations.

Persons wishing to participate in this program complete a request form and return it to the City of Wenatchee Parks and Recreation Department.

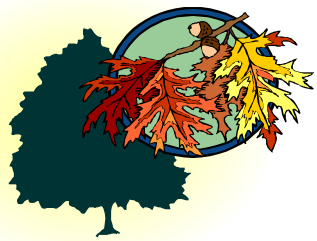
Department staff will contact with the person to consult on preferred tree species, potential locations and cost. The living memorial will then be planted at the chosen site during the earliest possible season in which the tree's species can be planted most successfully.

Participants will also receive a certificate from the Wenatchee Parks and Recreation Department commemorating the living memorial and a map showing the general location of the tree.

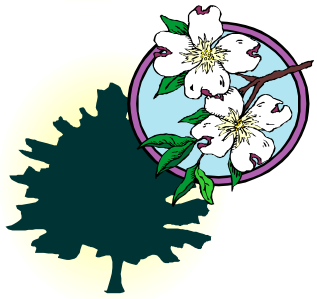
The tree will be identified in the park with a 4 inch by 6 inch brass marker installed near the base of the tree. The marker will designate the memorial and both the common and botanical names of the tree to

add to the City Arboretum.

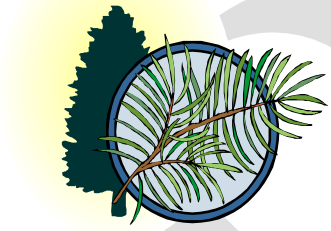
Living Memorial Trees are purchased from local nurseries. The price of the tree is dependent upon the type and size selected and market changes. The price range is generally $100 to $250 and includes the planting, site preparation and memorial marker. The following categories of trees may be selected:



Shade Trees
These trees provide large canopies, and usually reach or exceed heights of 50 feet. Planted size is a 2 1/2 inch trunk diameter, 18 to 15 feet high. Price range: $100 to $250.



Ornamental Trees
These trees generally exhibit interesting branching habits and features of unique foliage. They range in height from 20 to 50 feet. Planted size is a 2 1/2 inch trunk diameter, 8 to 15 feet high. Price range: $125 to $225.



Evergreen Trees
These trees have needle-like or scale-like leaves, which remain on most species year round, and are pyramid shaped. They grow to a height exceeding 50 feet. Planted size ranges from 5 to 8 feet high. Price range: $100 to $250.

BUDGET

APPRAISED VALUE

A dollar value per tree was calculated utilizing the Trunk Formula Method as explained in the Council for Tree and Landscape Appraisers' (CTLA) Guide to Plant Appraisal, 9th edition using the ratings and costs for the Eastern Washington/Interior region developed by the Pacific Northwest Chapter ISA Plant Appraisal Committee (PNW-ISA 2007).

The Trunk Formula Method is used to appraise the monetary value of trees considered too large to be replaced with nursery or field-grown stock. Determination of the value of a tree is based on the cost of the largest commonly available transplantable tree and its cost of installation, plus the increase in value due to the larger size of the tree being appraised. These values are adjusted according to the species of the tree and its physical condition and landscape location (site, contribution, and placement).

The following information is needed to appraise the value of a tree by the Trunk Formula Method:

Field Observation

1. The species of the appraised tree(s).
2. The condition rating of the appraised tree(s).
3. The size of the appraised tree(s): the trunk cross-sectional area 4.5 ft (1.4m) above the ground.
4. The site, contribution, and placement ratings for calculating the location rating.

Regional Plant Appraisal Committee and/or Appraiser-Developed or –Modified Information

5. The species rating of the appraised tree(s). Due to local experience with a species, an appraiser may rate it differently than the Regional Plant Appraisal Committee.
6. The replacement tree size (TA_R) is the trunk area (measurement height depends on trunk diameter) of the largest commonly available transplantable tree.
7. The replacement tree cost is the cost of a tree of replacement tree size (#6). (As in the eight edition of the Guide, this Cost can be wholesale, retail, or installed, as decided by the Regional Plant Appraisal Committee).
8. The installation cost is the cost of installing a tree of replacement tree size (#6).
9. The installed tree cost is the sum of the replacement tree cost (#7) and the installation cost (#8) of a tree of replacement tree size (#6).
10. The unit tree cost is determined by the Regional Plant Appraisal Committee and can be the wholesale replacement tree cost (#7), the retail replacement Tree Cost (#7), or the installed tree cost (#9) divided by the replacement tree size (#6), as set by the Regional Plant Appraisal Committee, or the appraiser may have to determine the unit tree cost.

Calculations To Be Made by the Appraiser Using the Above Information:

11. Calculate or use tables 4.4 through 4.7 to determine the cross-sectional area of the trunk (TA_A) of the appraised tree. If the trunk diameter is greater than 30 in. (75cm), calculate or use tables 4.4 through 4.7 to determine the adjusted trunk area (ATA_A).
12. Subtract the trunk area of the replacement tree size (TA_R) (#6) from trunk area (TA_A or ATA_A) (#11) to obtain the appraised tree size increase (TA_{INCR}).
13. Multiply the increase in the size of the appraised tree (TA_{INCR}) (#12) by the unit tree cost (#10) and add the installed tree cost (#9) to obtain the basic tree cost of the appraised tree.
14. The basic tree cost (#13) is adjusted by the species (#5), the condition (#2), and the location (#4) ratings to obtain the appraised value of the appraised tree.
15. If the appraised value (#14) is $5,000 or more, round to the nearest $100; if it is less than $5,000, round to the nearest $10.
16. Appraised Value (#14) = $_____.

Appraised Value = Basic Tree Cost x Species % x Condition % x Location %.

Basic tree Cost = Trunk Area Increase of the appraised tree x Unit Tree Cost + Installed Tree Cost.

Location = (Site % + Contribution % + Placement %) ÷ 3.

Installation cost is the cost of transporting the plant to the site, planting it in the same placement as the appraised tree, monitoring it during the maintenance period, guaranteeing it, and ensuring a reasonable profit.

Using the CTLA the total appraised value for the calendar year 2009 for the trees inventoried is calculated to be $6,550,600. The break-out of tree value per area inventoried is as follows:

Cemetery	$1,911,100
Centennial Park	$15,600
Chase Park	$104,500
Downtown	$404,200
Lincoln Park	$631,000
Locomotive	$429,100
Memorial Park	$621,700
Methow Park	$164,000
Pennsylvania Park	$228,300
Pioneer Park	$1,017,200
Rainbow Park	$6,200
Rotary Park	$64,400
Washington Park	$953,300
Total	$6,550,600

BUDGET

An annual Community Forestry budget was developed based on addressing all of the recommended actions for each tree during a single event. The budget is to be used as a guide only, recognizing the need for flexibility to respond to emergency situations and shifts in funding and grant availability. By addressing issues at one time, costs associated with organizing, administering, managing, and returned trips to a tree may be reduced. Tree workers may also complete all canopy work during a single maintenance event, reducing the time needed to access the tree canopy. Trees were grouped by highest priority for action required.

Extreme (next few weeks to months)	$2,215
High (Year 1)	$15,684
Medium (Years 2 and 3)	$54,380 (or $27,190 each year)
Low (Years 4 and 5)	$28,695 (or $14,348 each year)
Total	$100,974

Following completion of work on the low priority trees, a new budget should include a monitoring visit and new assessment for each inventoried tree.

The amount of $100,974 recommended for the maintenance budget for a five year period is 1.54% of the total appraised tree value, or 0.3% of the total tree value per year to maintain a 6.5 million dollar resource.

Benefits received from street and park trees are unique to each city depending on local factors, past tree care, and management. This can include items such as carbon sequestration, pollution reduction, rainfall interception, consumer perceptions in business districts, real estate values, energy savings, and multiple other attributes. The calculation to determine the return of cost investment for City dollars spent towards the annual budget for the life of the Management Plan requires prior inventory and supplemental data.

Based research completed by Tree Solutions Inc, cities similar in size to the City of Wenatchee spend between $20 to $40 dollars per tree a year on street and park trees. These cities see a return on cost investment ranging from 18% to 89%, or $1.18 to $1.89 for every dollar spent.

Materials and labor costs are included in Table 1. Regional suppliers provided dollar values for materials. Labor rates are adjusted for general labor and skilled labor depending on the recommended task. Labor hours required to complete a task on small, medium, and large trees are shown in the Labor column.

Recommended Action	*Materials*	*Labor @ $35/hr*	*Small Tree $ Cost*	*Medium Tree $ Cost*	*Large Tree $ Cost*
Mulch	*$25/yard*	*.5,.5,1*	*25*	*40*	*105*
Removal of Turf		*1,2,3*	*35*	*70*	*105*
Air Spade – rent air tool, compressor, project mobilization	*$575*	*2,4,6*	*645*	*715*	*785*
Treatments					
Dutch Elm Disease	*$25/DSH*	*1,2,4*	*185*	*520*	*890*
Cherry Bark Tortrix	*$1/DSH*	*.5,1,2*	*25*	*55*	*100*
Water					
Gator bags, install	*$25*	*.5,.5,.5*	*43*	*43*	*43*
Fill bag w/water 1 time	*Local rate*	*.5,.5,.5*	*20*	*20*	*20*
*Pruning**		**$65/hr*			
Crown clean		*2,3,4*	*130*	*195*	*260*
Clearance prune		*1,1,2*	*65*	*65*	*130*
Structural prune		*1,2,3*	*65*	*130*	*195*
Crown reduction		*1,2,4*	*65*	*130*	*260*
Tree Removal		*3,6,12*	*195*	*390*	*780*
Cable	*$75*	*2*	*n/a*	*205*	*205*
Testing					
Resistograph	$45	1			
Aerial Inspection		n/a,2,4	n/a	70	140
Soil Test	$100	.5			
Monitor		*.5*	*20*	*20*	*20*
Remove ivy		*1,2,3*	*35*	*70*	*105*
Other					
Girdling Roots		*1,2,3*	*35*	*70*	*105*
Expose Buried Root Flares		*1,2,4*	*35*	*70*	*140*
Remove Planting Stakes		*.5,n/a,n/a*	*20*		
Remove growth obstruction		*1,1,2*	*35*	*35*	*70*
Habitat Snag		*2,4,8*	*70*	*140*	*280*

Table 1. Estimate of cost to perform each management recommendation action.

Additional budget funding may be necessary to enhance the provision of educational programs such as Arbor Day and preparation of materials such as educational brochures and promotional articles. A portion of these tasks may be completed by city staff as a part of their regular duties.

POSSIBLE FUNDING SOURCES

Funding has often been available for planting, purchasing and the installation of trees and management and educational purposes. Listed below are some of the funding sources which the City may wish to pursue to assist in the support of the Community Forestry Program.

LIVING MEMORIAL TREE PROGRAM
The Living Memorial Tree Program was established in 2007 which trees are purchased and planted in honor of a birth, marriage, death of a loved one, birthday, anniversary or other event. Trees are selected from the approved tree list and planted in a park area. Along with the tree a dedication 3" x 6" plaque is installed which identifies the donor, reason for donation and species of tree.

SERVICE CLUBS
There are a number of service clubs in Wenatchee. They often look to fund and/or support community oriented projects. They can be approached to "plant" and fund street tree plantings or one or trees in a park.

CORPORATE SPONSORS
Small and large corporations can be approached to sponsor and/or fund tree planting or restoration efforts.

CITY FUNDING
Wenatchee makes tree preservation or replacement an automatic part of any street or park improvements or requirements for development. The City of Wenatchee should establish a tree removal and replacement line item within the Parks Maintenance and Operations Division budget to assist in the tracking the maintenance of park related trees.

AWC LOSS CONTROL GRANTS
Small grant fund which may be able to be used for hazardous tree removal.

NATIONAL TREE TRUST GRANT
The National Tree Trust can provide up to 10,000 tree seedlings per year to applicants. Following the establishment of a city nursery, this grant program could be an on-going source of replacement trees.

DEPARTMENT OF NATURAL RESOURCES COMMUNITY FORESTRY GRANT
This grant program may be used for education and planting purposes and should be pursued.

TEA21 FUND
The program provides grants to historic sites for landscaping improvements.

DEPARTMENT OF FISH AND WILDLIFE
The Fish and Wildlife Department has grant programs to help plant along river and stream corridors.

GLOBAL RELEAF
Global Releaf has established a grant program which provides matching funds for the purchase of trees.

RCO WWRP, URBAN HABITAT & OTHER GRANTS
The State Recreation and Conservation Office administers a variety of grant programs which could be utilized for habitat and tree planting projects.

DEVELOPER REQUIREMENTS
Street trees, park trees may be provided by developers when completing construction projects. Care should be taken when reviewing landscape plans to ensure that the trees fit within the urban forest.